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ABSTRACT

The Austin Independent School District presents a final technical report concerning its Chapter 1 and Chapter 1 Migrant Programs. Chapter 1 and Migrant Program Early Childhood (prekindergarten) students made impressive achievement gains that were even larger than last year's. However, students in grades 2-12 who have been served from 1 to 4 years by the Migrant Program did not make greater achievement gains from 1981 to 1982, or 1982 to 1983, than did other migrant students who have not been served. The high school Migrant Program has several weaknesses: (1) little focus on low-achieving students; (2) no discernible impact of the program on achievement; (3)considerable disparity among the number of students served by each teacher; and (4) a lower proportion of eligible students served than at the elementary and junior high levels. There is some evidence that extremely low-scoring Schoolwide Projects students (those few who are more than a year behind grade level) do not gain as much in some cases as comparable students in Regular Chapter 1 schools. The report discusses the programs in detail, and the appendices include descriptions of the instruments used in the regular Chapter 1 programs. (PN)

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ECIA Chapter 1

1982-83 FINAL TECHNICAL REPORT

July, 1983

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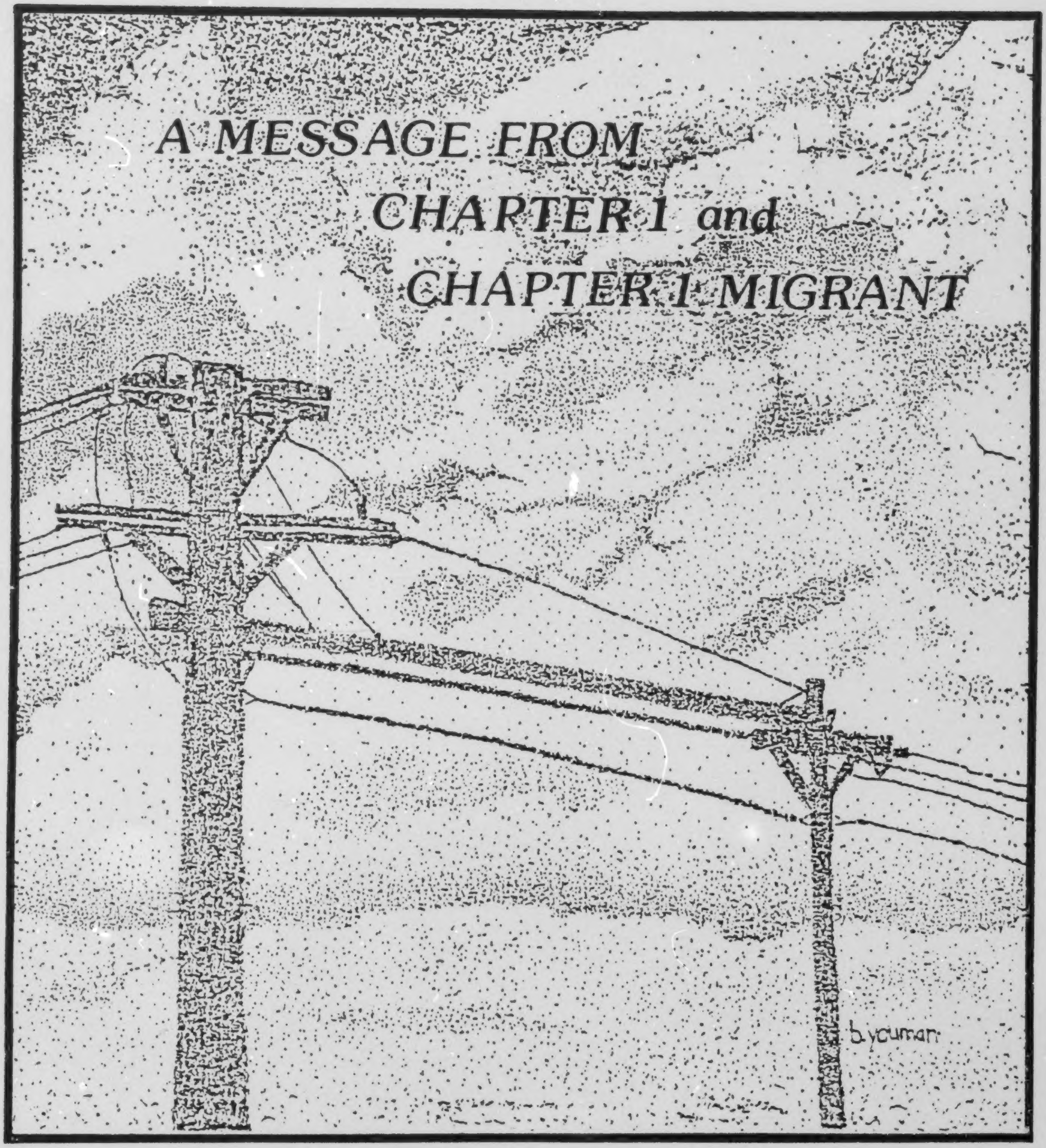
A MESSAGE FROM CHARTER 1 and CHAPTER 1 MIGRANT



Cover Drawing by Becky Youman, Austin High School

Austin Independent School District
Austin, Texas

1982-83

DEFINITIONS

Chapter 1 Regular - The Chapter 1 Regular Program provides supplementary reading instruction to low-achieving students (those who score at the 30th percentile or below) in twenty-five schools with high concentrations of students from low-income families.

Chapter 1 Schoolwide Projects - Two schools, Allison and Becker, have a sufficient concentration of low-income students to qualify as Chapter 1 Schoolwide Projects. In these schools Chapter 1 and extra local funds are used to lower the pupil/teacher ratio. All students in the schools are considered Chapter 1 students.

Current Migrant - A current migratory child is one (a) whose parent or guardian is a migratory agricultural worker or migratory fisher, and (b) who has moved within the past twelve months from one school district to another to enable the child, the child's guardian, or a member of the child's immediate family to obtain temporary or seasonal employment in an agricultural or fishing activity.

Former Migrant - Students who remain in the District following their year of current eligibility are considered formerly migratory students (with the concurrence of their parents) for a period of five additional years. Current and former migratory students are eligible for the same program services.

Types of Service -
- Lab or Pullout - Student is served outside regular classroom.
- Classroom Service - Student is served in his/her regular classroom.
- Special Class - Student is registered for a special program class, e.g., Early Childhood Classes.
- Other - Any other ways a student might be served, e.g., tutoring.

MSRTS - The Migrant Student Record Transfer System (MSRTS) is a national level recordkeeping system designed to maintain files of eligibility forms, health data, instructional data, and achievement data on migrant students. These records are sent as a student migrates from school district to school district to provide each school district with information about the student. The District and the MSRTS Clerk are required to maintain these files in a certain order and update various records during the school year.

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Final Report

Project Title: Chapter 1 and Chapter 1 Migrant

Contact Persons: Karen Carsrud and Catherine Christner

MAJOR POSITIVE FINDINGS:

1. Chapter 1 and Migrant Program Early Childhood (prekindergarten) students made impressive achievement gains that were even larger than last year's.
2. The achievement gains of 1982-83 Schoolwide Projects students in reading, math, and language were generally greater than those of comparable students in the Regular Chapter 1 Program schools. A longitudinal examination of Schoolwide Projects students' achievement gains also appears encouraging concerning advantages of participation in the program.
3. There is evidence to indicate continued improvement in the Regular Chapter 1 Program. The program met or exceeded its objectives at every grade level.

MAJOR FINDINGS REQUIRING ACTION:

1. The high school Migrant Program has several weaknesses:
   - little focus on low-achieving students;
   - no discernible impact of the program on achievement;
   - considerable disparity among the number of students served by each teacher; and
   - a lower proportion of eligible students served than at the elementary and junior high levels.
2. Students in grades 2-12 who have been served from one to four years by the Migrant Program did not make greater achievement gains from 1981 to 1982, or 1982 to 1983, than did other migrant students who have not been served.
3. There is some evidence that extremely low-scoring Schoolwide Projects students (those few who are more than a year behind grade level) do not gain as much in some cases as comparable students in Regular Chapter 1 schools. If such evidence continues to emerge, other forms of instructional grouping or supplemental instruction should be considered for these students.

CHAPTER 1 AND MIGRANT EARLY CHILDHOOD (PRE-K)

DID EARLY CHILDHOOD STUDENTS MAKE ACHIEVEMENT GAINS?

Yes! Both Chapter 1 and Migrant Program students made very good gains on the Peabody Picture Vocabulary Test-Revised (PPVT-R). The Chapter 1 students showed an average gain of 17.4 scale score points from the pre- to the posttest. Migrant Program students gained an average of 12.9 points. Over a period of time, scaled scores are expected to remain constant, so these gains indicate real growth rates well above the national average.

Both programs produced improved gains this year when compared to last year (see Figure 1). Chapter 1 continues to produce greater gains than does the Migrant Program. As was noted last year also, Chapter 1 students with lower pretest scores made greater gains than did Migrant Program students scoring at the same low levels. There also continued to be more variety in average gains made across the Migrant Program classes than across the Chapter 1 classes.

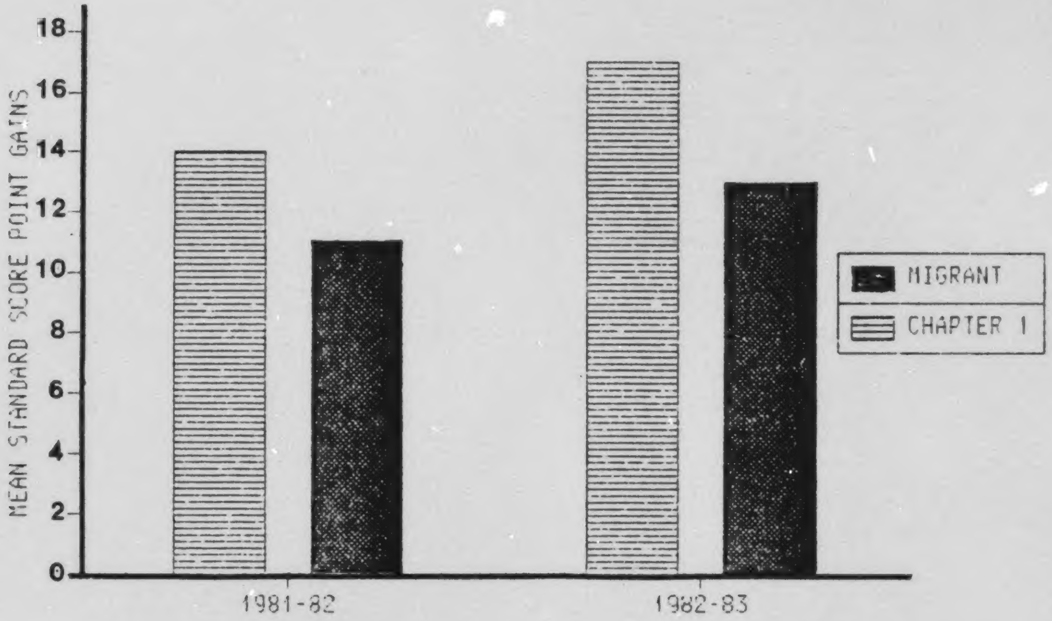


Figure 1. CHAPTER 1 AND MIGRANT PROGRAM GAINS ON THE PPVT-R IN 1981-82 and 1982-83.

WHAT HAPPENS TO THE ACHIEVEMENT OF FORMER PREKINDERGARTEN STUDENTS WHEN THEY REACH HIGHER GRADE LEVELS?

Prekindergarten students in AISD's Early Childhood programs score at high levels at the end of the prekindergarten year and at beginning of kindergarten. However, these high achievement levels have not always been evident at higher grade levels. Figure 2 shows the spring, 1983 median reading total percentile for 1978-79 prekindergarten students. It suggests that they might be regaining some of their lost advantage. However, these data must be interpreted with caution, because medians for these students have varied from year to year, not all former prekindergarten students have remained in the District or been tested every year, and the number of students in the analyses is quite small in some cases.

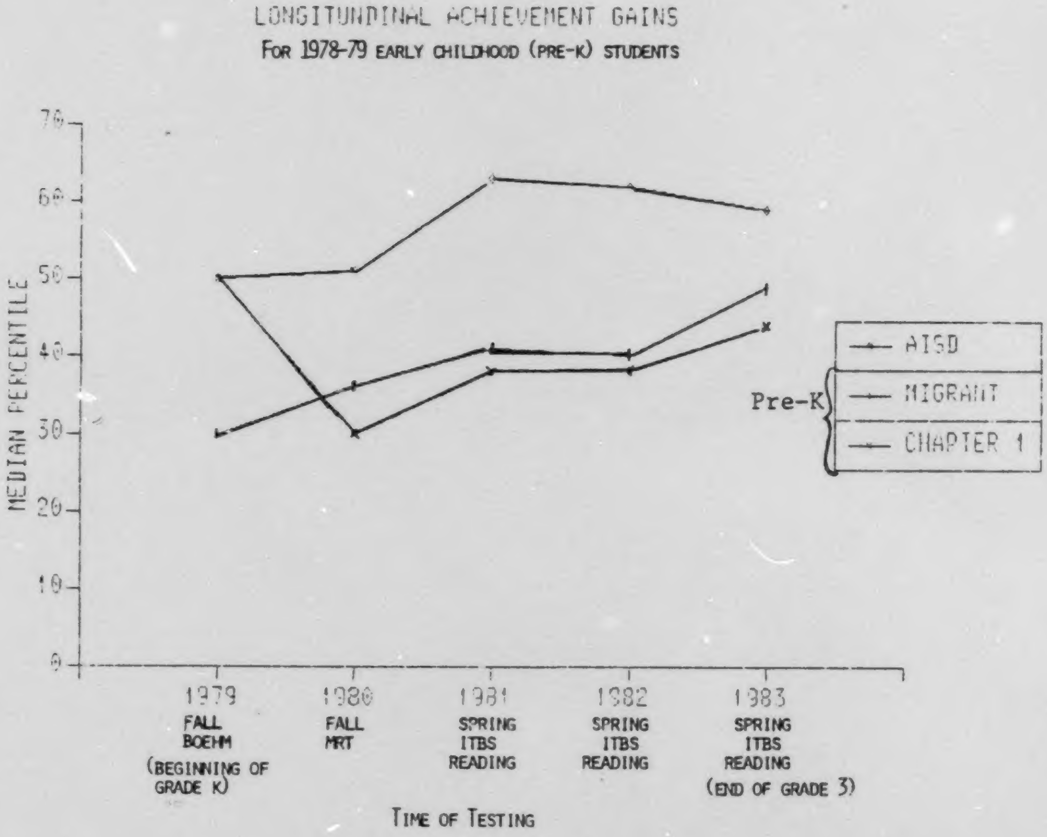


Figure 2. MEDIAN PERCENTILE FOR FORMER EARLY CHILDHOOD (PRE-K) STUDENTS AS THEY REACH HIGHER GRADE LEVELS.

HAVE ANY SPECIAL EFFORTS BEEN AIMED AT FORMER PREKINDERGARTEN STUDENTS TO HELP THEM MAINTAIN THEIR HIGH ACHIEVEMENT?

Yes, in 1982-83 elementary instructional coordinators worked with a randomly chosen group of teachers to help the teachers focus on the needs of former prekindergarten students and retained students in their classes. The intervention was a fairly unstructured one, however, and former prekindergarten students and retained students in those classes did not gain more than a control group of former prekindergarten and retained students whose teachers were not aided.

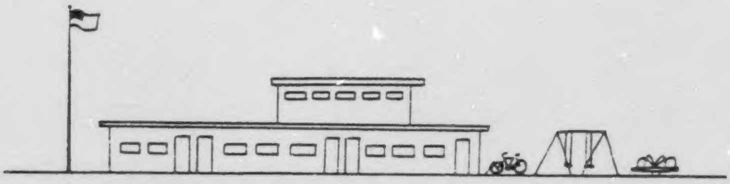
THE CHAPTER 1 PROGRAM IN AISD

WHAT IS THE CHAPTER 1 PROGRAM?

As part of the Educational Consolidation and Improvement Act (ECIA), Chapter 1 was created to serve educationally disadvantaged students in economically disadvantaged areas. The program was called Title I in previous legislation. In AISD, the program is primarily a reading/ language arts program serving K-6 students in 25 Regular Chapter 1 schools and two Schoolwide Projects. In addition, three nonpublic schools, four institutions for neglected/delinquent (N & D) children, and nine prekindergarten classes were served by the program.

WHAT ARE SCHOOLWIDE PROJECTS?

In Schoolwide Projects, extra teachers normally provided by Chapter 1 funds, along with extra locally funded teachers, are all used as classroom teachers to reduce the average class size for the entire school. In the AISD Regular Chapter 1 Program, Chapter 1-funded teachers provide service only to students who are below the 31st percentile in their reading achievement test scores (or language scores, for kindergartners). In a Schoolwide Project, all students are served.



HOW ARE SCHOOLS AND INDIVIDUAL CHILDREN SELECTED FOR THE CHAPTER 1 PROGRAM?

By law, AISD Chapter 1 schools must be chosen by first ranking all the District's schools on the basis of the percentage of low-income students who reside in each schools' attendance area. In order to do this, a major effort is conducted each year to count all students and also the number of low-income students who actually reside in various areas of the city and to determine the areas of greatest economic need. Then, the AISD elementary schools with the highest percentage of low-income students residing in their attendance area are selected to participate in the Chapter 1 Program.

Individual children within Chapter 1 schools are also ranked on the basis of "greatest need." Students with the lowest reading achievement test scores are served first, with as many students (up to the 31st percentile) served as resources allow.

HOW MANY STUDENTS WERE SERVED IN THE CHAPTER 1 PROGRAM 1982-83?

The Chapter 1 Program provided service to 4,557 students in 1982-83. Figure 3 illustrates the proportion of students served by each component.

WERE THERE CHANGES IN HOW REGULAR CHAPTER 1 PROGRAM SERVICES WERE DELIVERED FOR 1982-83?

There was a slight increase in the percentage of Chapter 1 students who were "pulled out" to the reading lab for service. For 1982-83, 38% of Chapter 1 students were served in the lab, versus 34% for 1981-82.

WHAT PERCENTAGE OF ELIGIBLE STUDENTS WERE SERVED?

Approximately 67% of eligible students in Chapter 1 schools were served by Chapter 1. However, many students who are eligible for Chapter 1 are served by other programs, such as Special Education, Bilingual, or Migrant.

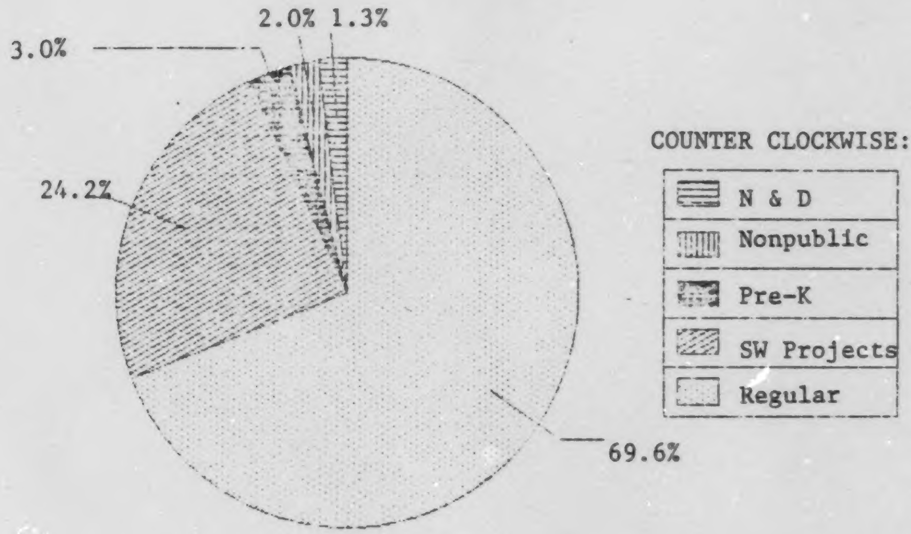


Figure 3. PROPORTION OF CHAPTER 1 STUDENTS SERVED BY EACH COMPONENT IN 1982-83.

WHAT TYPES OF SERVICES ARE PROVIDED BY THE CHAPTER 1 PROGRAM AT THE FOUR N & D INSTITUTIONS?

Three of the N & D (neglected and delinquent) institutions use Chapter 1 funds to hire aides to work with students, while the fourth uses the funds to purchase instructional materials. The aides perform a variety of tasks: tutoring, assisting students during supervised study halls, and meeting with regular AISD classroom teachers. In structured interviews, directors of the institutions reported that students to be served by Chapter 1 are selected on the basis of need, but that it is difficult to validly test the children, because many are emotionally disturbed, volatile, or have short attention spans.

There can also be considerable turnover in the student populations of these institutions, as shown in Figure 4. One director reported difficulty in finding a qualified person to fill the aide position at the relatively low salary ($5.63/hour). Another director felt that residents at that facility were not academically oriented, but instead were focused on learning the skills needed for independent living. In short, there are many difficulties associated with providing services within these facilities. However, all of the directors felt that the program was helpful.

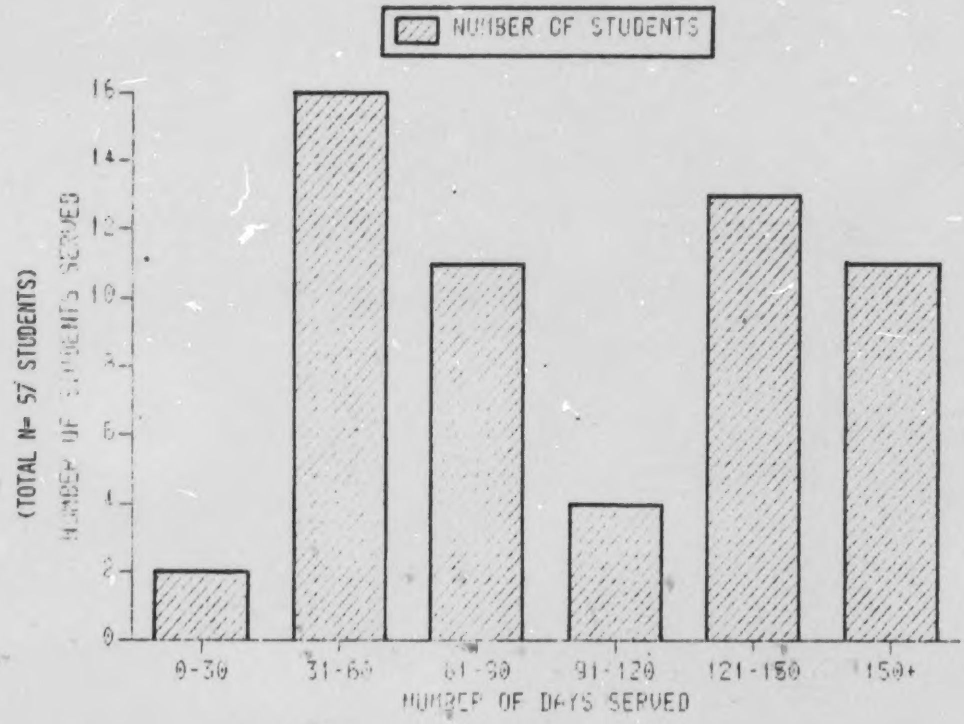


Figure 4. NUMBER OF DAYS N & D CHAPTER 1 STUDENTS WERE SERVED.

WHAT TYPES OF SERVICES ARE PROVIDED BY THE CHAPTER 1 PROGRAM AT THE THREE NONPUBLIC SCHOOLS?

Supplemental instruction was provided in both reading and math to students below the 31st percentile. A total of 91 students were served, with some receiving Chapter 1 service in both subject areas. Figure 5 shows the number of students served in reading and math by the three nonpublic schools.

	Reading	Math
St. Mary's	46	38
St. Austin's	11	9
St. Ignatius'	18	17
Total	75	64

Figure 5. DUPLICATED COUNT OF STUDENTS SERVED IN READING AND MATH AT THREE NONPUBLIC CHAPTER 1 SCHOOLS.

THE CHAPTER 1 MIGRANT PROGRAM IN AISD

WHAT IS THE MIGRANT INSTRUCTIONAL PROGRAM?

In 1982-83 the Migrant Program funded: eight fulltime and two halftime Early Childhood teachers; seven fulltime and one halftime elementary teachers; one fulltime and three parttime junior high teachers; and three fulltime and one parttime senior high teachers. Twenty-four AISD campuses were served by a Migrant Program teacher.

WHO WAS SERVED BY MIGRANT PROGRAM TEACHERS?

Figure 6 shows the numbers of students served by Migrant Program teachers across grade levels. The numbers confirm the relative stability of the migrant student population in that 65% were seen for 91 days or more out of the 165 day school year.

As has been reported for several years, there continue to be discrepancies in the proportion of eligible students served at each level across each six weeks: 87% to 95% of the eligible early childhood (prekindergarten) students; 69% to 77% of the eligible K-6 students; 65% to 81% of the eligible junior high students; and 47% to 56% of the eligible senior high students. Figure 7 illustrates this disparity for the fourth six weeks of 1982-83.

Although the Migrant Program is not limited to providing instruction for the lowest achieving students (those scoring at the 30th %ile or lower), the focus is on students at these levels. On the average 86% of the elementary and junior high low achieving migrant students were served by a Migrant Program teacher, while only 58% of the low-achieving senior high migrant students on the average were served by a senior high Migrant Program teacher.

HOW WERE MIGRANT STUDENTS SERVED?

In Figure 8 are given the various ways migrant students received instruction from a Migrant Program teacher. The variation across grade levels is considerable.

As has been reported for the last several years, the number of students served by the senior high Migrant Program teachers varied greatly across teachers. One teacher saw 13 students while another saw 37 students. The only parttime teacher (60%) saw more students regularly than did one fulltime teacher.

Grade	1-15 Days Number	1-15 Days Percent	16-30 Days Number	16-30 Days Percent	31-90 Days Number	31-90 Days Percent	91 or More Number	91 or More Percent	Total Number
EC	5	3.8%	1	0.8%	9	6.8%	118	88.7%	133
K	4	8.2%	7	14.3%	4	8.2%	34	69.4%	49
1	0	0.0%	6	8.2%	14	19.2%	53	72.6%	73
2	1	2.3%	1	2.3%	5	11.4%	37	84.1%	44
3	2	5.9%	1	2.9%	10	29.4%	21	61.8%	34
4	4	11.1%	4	11.1%	5	13.9%	23	63.9%	36
5	2	5.1%	4	10.3%	12	30.8%	21	53.8%	39
6	1	4.0%	3	12.0%	5	20.0%	16	64.0%	25
Elementary Total	14	4.7%	26	8.7%	55	18.3%	205	68.3%	300
7	5	11.6%	3	7.0%	11	25.6%	24	55.8%	43
8	3	6.5%	11	23.9%	14	30.4%	18	39.1%	46
Junior High Total	8	9.0%	14	15.7%	25	28.1%	42	47.2%	89
9	6	11.1%	8	14.8%	13	24.1%	27	50.0%	54
10	5	14.7%	2	5.9%	8	23.5%	19	55.9%	34
11	3	10.0%	4	13.3%	12	40.0%	11	36.7%	30
12	0	0.0%	6	35.3%	9	52.9%	2	11.8%	17
Senior High Total	14	10.4%	20	14.8%	42	31.1%	59	43.7%	135
AISD Total	41	6.2%	61	9.3%	131	19.9%	424	64.5%	657

Figure 6. NUMBER AND PERCENT OF MIGRANT STUDENTS SERVED DURING 1982-83 BY A MIGRANT PROGRAM TEACHER FOR VARYING LENGTHS OF TIME.

This year, in an effort to work with the high school migrant students, a pilot Dropout Prevention Program was instituted at two high schools, Anderson and Crockett. Because this program started late in the school year, evaluation data are not yet available on the success of this program.

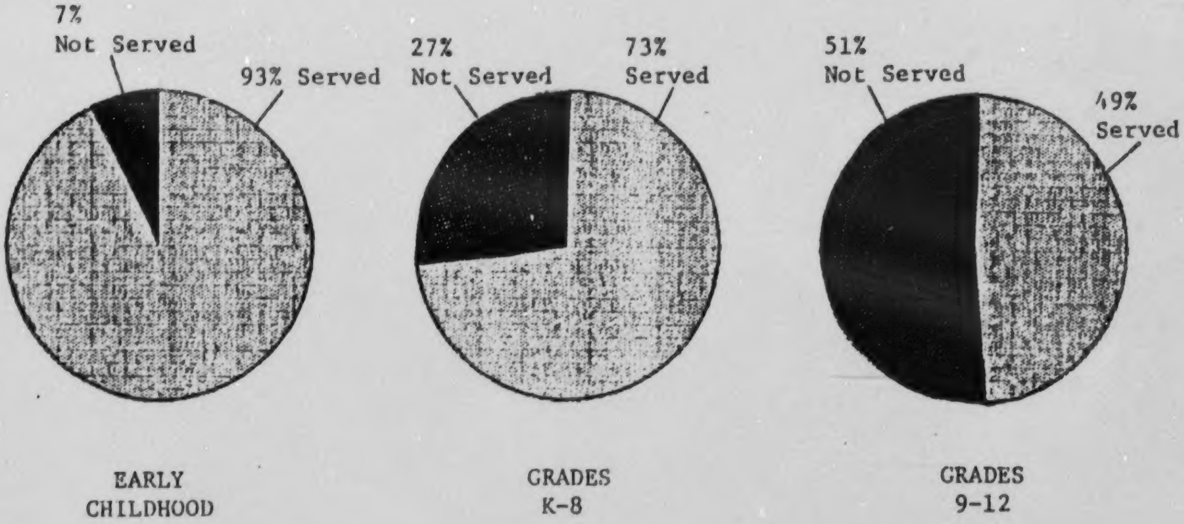


Figure 7. PROPORTIONS OF ELIGIBLE MIGRANT STUDENTS BEING SEEN AT EACH LEVEL.

	Lab/ Pullout	Classroom Service	Special Migrant Class	Other Methods
EC	0%	0%	100%	0%
K-6	71%	29%	0%	<1%
7-8	7%	29%	49%	15%
9-12	3%	53%	18%	26%

Figure 8. AVERAGE PERCENTS OF STUDENTS SERVED BY THE MIGRANT PROGRAM VIA THESE FOUR INSTRUCTIONAL METHODS.

Chapter 1 Achievement Gains

WHAT WERE THE ACHIEVEMENT GAINS OF STUDENTS IN THE REGULAR CHAPTER 1 PROGRAM?

The AISD Regular Chapter 1 Program met or exceeded its objectives at every grade level. The objectives were based on the ITBS achievement gains made by Chapter 1 students from the previous year (which had been generally higher than for the year before that!) Thus, the gains of this year's Chapter 1 students indicate that program improvement has continued across the last two years. Figure 9 shows the average gains of Regular Chapter 1 students in reading across the grade levels.

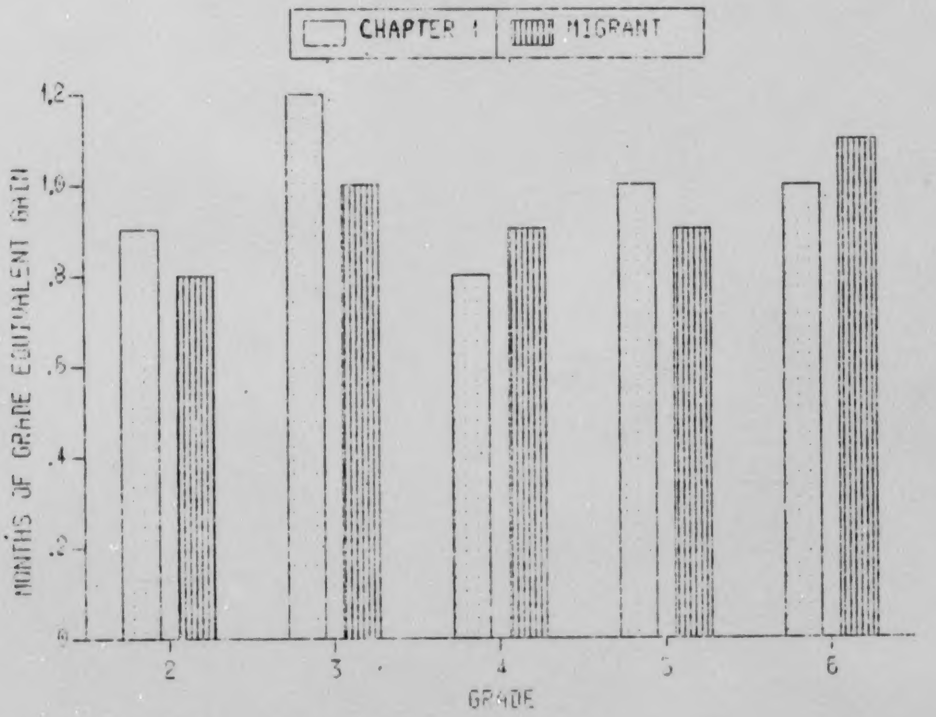


Figure 9. MEAN GAINS IN READING GRADE EQUIVALENT SCORES FOR CHAPTER 1 AND MIGRANT PROGRAM STUDENTS.

HOW DID THESE GAINS COMPARE TO THOSE OF STUDENTS IN SCHOOLWIDE PROJECTS?

The achievement gains of students in Schoolwide Projects were compared to the gains of Regular Chapter 1 students with comparable pretest scores. A total of 19 comparisons were made with Language (grades K-6), Reading (grades 1-6), and Math (grades 1-6) Total ITBS scores. Five of these 19comparisons yielded nonsignificant results. For nine of these 19 comparisons, Schoolwide Projects students clearly gained significantly more than Regular Chapter 1 students, regardless of their pretest scores.

For five of these comparisons, Schoolwide Projects students generally gained more than comparable Regular Chapter 1 students, except for those few students with extremely low pretest scores. Students in these five comparisons who had extremely low pretest scores (more than a year behind grade level on the pretest) gained less in Schoolwide Projects than comparable students in the Regular Chapter 1 schools. It is possible that whole-class instruction may have some limitations for these extremely low-scoring students. However, for the large majority of students, Schoolwide Projects were more effective at increasing achievement than the Regular Chapter 1 Program.

WHAT HAS HAPPENED TO THE ACHIEVEMENT OF STUDENTS IN SCHOOLWIDE PROJECTS FOR THREE YEARS?

A matched group was drawn of students in either Schoolwide Projects or Regular Chapter 1 schools for all of the last three years. The sample was matched on ethnicity, low-income status, grade, sex, pretest, age, and retainee status. Comparisons were made of spring 1983 ITBS scores for students who were in grades K and 1 and who were attending the two types of schools during 1980-81 and afterwards. Partially because the numbers of students in the samples were small, only one comparison yielded a statistically significant finding: Schoolwide Project students who were in grade 1 during 1980-81 had gained more in Language by the spring of 1983 than comparable students in Regular Chapter 1 schools. However, other comparisons approached statistical significance and all of the comparisons favored Schoolwide Projects students.

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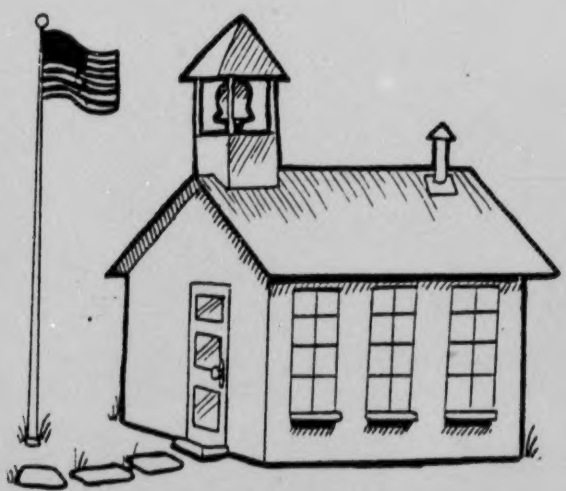
WHAT HAS HAPPENED TO THE ACHIEVEMENT OF STUDENTS WHO ARE NO LONGER ATTENDING A CHAPTER 1 SCHOOL BECAUSE OF DESEGREGATION?

Some students that received Title I services prior to the District's desegregation plan beginning in 1980-81 no longer receive these services because their new schools do not have a high enough percentage of low-income children to qualify for the Chapter 1 Program. A comparison was made of two groups of K-3 students who were served by Title I in 1979-80: those who remained in Title I/Chapter 1 schools and those who did not. These comparisons revealed that spring 1983 reading achievement test scores were significantly higher in three of the four comparisons for the group of students no longer attending a Chapter 1 school. Research in this area has suggested that attending schools which have lower concentrations of low-income children can enhance achievement gains, which may have offset any disadvantages to students who lost Chapter 1 services. Furthermore, the former Title I students may have been served by the SCE Program in their new schools.

WERE THERE OTHER ACHIEVEMENT FINDINGS OF INTEREST CONCERNING CHAPTER 1 STUDENTS?

There was a nonsignificant trend for low-achieving kindergartners in Chapter 1 schools to gain more in language if their school served kindergartners with the program. K was the only grade level which was optional for schools to serve with the Chapter 1 Program. Students who were retained in kindergarten gained less if they were served by Chapter 1 than did students who were not served. However, the two groups of students may not have been comparable. No differences were found in reading achievement between Chapter 1 and non-Chapter 1 retainees at other grades. Also there was no consistent pattern in the results that favored students served by the Regular Chapter 1 Program in a particular location such as the reading lab, regular classroom, or both.



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Chapter 1 Migrant Program Achievement Gains

Figure 10 (Grades 1-8) and Figure 11 (Grades 9-12) illustrate how generally low achieving the migrant students are. These figures are based on all migrant students who had test scores. The Hispanic comparison group is included since over 94% of the migrant students are Hispanic.

WHAT ACHIEVEMENT GAINS WERE MADE BY MIGRANT STUDENTS WHO WERE SERVED BY A MIGRANT PROGRAM TEACHER?

Grades K-8

Kindergarten students served by a Migrant Program teacher made an average 0.7 grade equivalent point gain on the Iowa Tests of Basic Skills (ITBS) Language Total from the fall of 1982 to the spring of 1983. This gain is smaller than that made by all AISD kindergarteners pre- and posttested but the same as all AISD Hispanic kindergarteners. The gain is one month better than Migrant Program kindergarten students made in 1981-82.

Those first graders served by a Migrant Program Teacher had an average ITBS Reading Total grade equivalent score of 1.6. This is two months less than the national average for first graders of 1.8. The Migrant Program students' scores this year are slightly better than the Migrant Program first graders' average scores last year.

In Figure 12 are presented the average grade equivalent gains for the Migrant Program students in grades 2-8. Also included are the the gains made by students in 1980-81 and 1981-82 for comparison purposes. As can be noted from the figure, the gains this year are similar to last year's gains, but with less variation across the grade levels.

In comparing the Migrant Program gains with the gains made by Chapter 1 Regular students (see Figure 9), it can be noted that Chapter 1 students made greater gains at some grades, while the Migrant Program students' gains were as good or better at other grade levels.

Grade	1980-81	1981-82	1982-83
2	0.7	0.7	0.8
3	1.0	1.0	1.0
4	1.0	0.9	0.9
5	0.9	0.7	0.9
6	0.5	1.1	1.1
7	1.6	1.2	0.9
8	1.0	0.8	0.9

Figure 12. AVERAGE GRADE EQUIVALENT GAINS ON THE ITBS READING TOTAL FOR STUDENTS SERVED BY A MIGRANT PROGRAM TEACHER IN 1980-81, 1981-82, AND 1982-83.

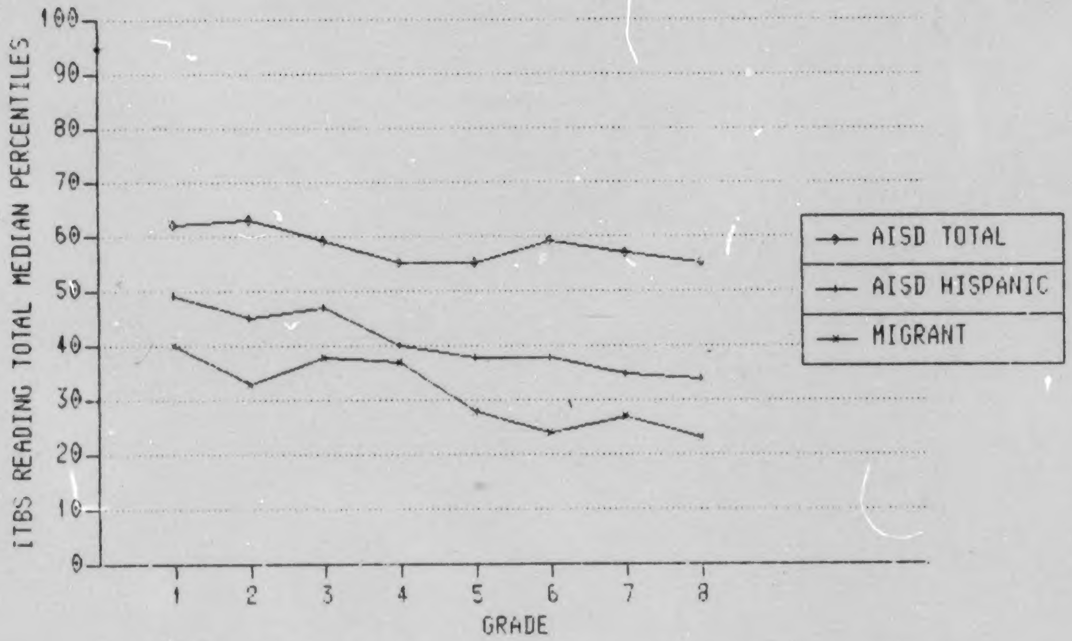

Figure 10. 1982-83 MIGRANT STUDENT ACHIEVEMENT, GRADES 1-8 AND TWO COMPARISON GROUPS.

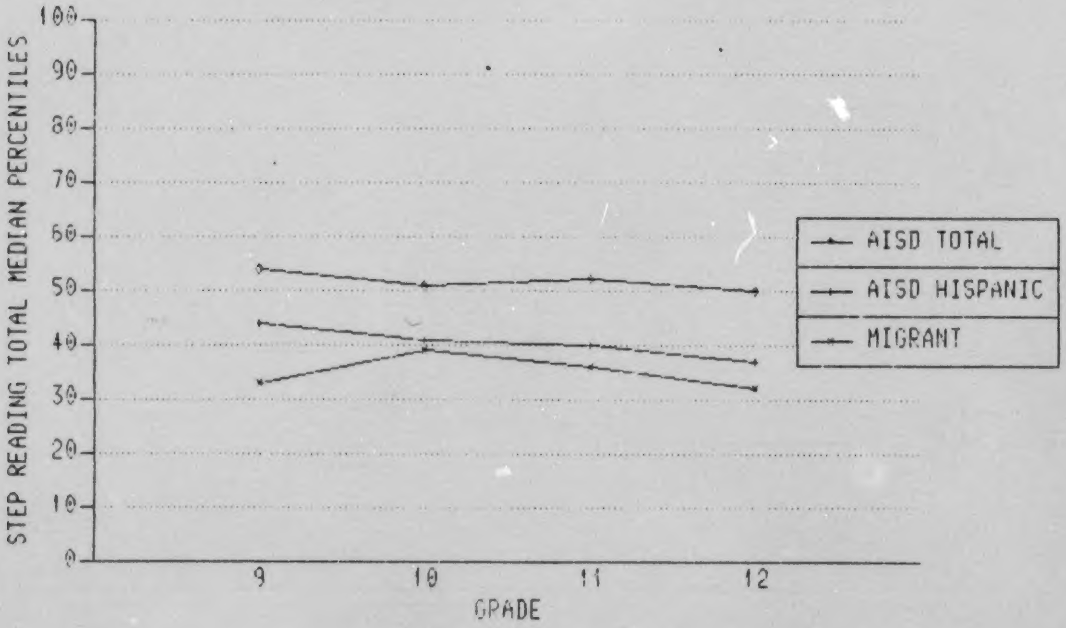

Figure 11. 1982-83 MIGRANT STUDENT ACHIEVEMENT, GRADES 9-12 AND TWO COMPARISON GROUPS.

Grades 9-12

Grade 9 students who were served by a Migrant Program teacher had a median percentile of 31 on their spring 1983 STEP Reading scores. This is considerably below the AISD median percentile for 9th graders of 54 and well below the median percentile for Hispanics 9th graders of 44.

Grades 10-12 migrant students served by a Migrant Program teacher showed percentile losses on the average. For comparison purposes, in Figure 13 are given the median percentiles for the pre- and posttests for Migrant Program students, all AISD, and AISD Hispanic students. The two comparison groups are consistently higher across both the pre- and posttest.

AISD is required by the Texas Education Agency to offer services to students in grades K-12 before it can offer early childhood prekindergarten classes. Because the high school program has not been particularly successful, new ways of implementing services to grades 9-12 students are being examined for 1983-84.

OVER TIME, DOES IT HELP STUDENTS' ACHIEVEMENT TO BE SERVED BY THE MIGRANT PROGRAM?

A longitudinal data file of migrant students in grades 2-12 was created to examine the long-term benefits of receiving instruction by a Migrant Program teacher. Achievement gains examined were from the spring of 1982 to the spring of 1983. In comparing the achievement gains of the students not served with those served one, two, three, or four years by a Migrant Program teacher, no discernable differences could be found in favor of students who were served regardless of length of time served. This was true even when gains were examined for just those students who scored at the 30th percentile or below. This same type of analysis was done in 1981-82, and the results were consistent.

	1981-82			1982-83		
	Grade 9	Grade 10	Grade 11	Grade 10	Grade 11	Grade 12
AISD Students Pre- & Posttested	60 (N=2357)	56 (N=2115)	54 (N=2242)	54 (N=2357)	53 (N=2115)	51 (N=2242)
AISD Hispanics Pre- & Posttested	50 (N=473)	42 (N=411)	41 (N=444)	42 (N=478)	40 (N=411)	38 (N=444)
Migrant Program Students (Served) Pre- & Posttested	40 (N=20)	35 (N=22)	31 (N=70)	36 (N=20)	20 (N=22)	24 (N=10)

Figure 13. MEDIAN PERCENTILES ON THE STEP, READING TOTAL, 1978 NORMS FOR MIGRANT STUDENTS SERVED BY A MIGRANT TEACHER AND TWO COMPARISON GROUPS. These are medians from matched (cohort) groups.

PARENTAL INVOLVEMENT-Chapter 1 & Migrant

WHAT HAPPENED WITH PARENTAL ADVISORY COUNCILS (PACs) IN 1982-83?

This year there was no legal requirement of the Chapter 1 and Migrant Program that the District form PACs. The only specific requirement regarding parental involvement in either program was a directive to inform parents about the programs and to get parental input on any proposed changes in the programs. Last spring both the Elementary Chapter 1/Migrant Districtwide PAC members and the Secondary Migrant Districtwide PAC members had voted to continue with the PAC meetings as their preferred way of parental involvement in the two programs.

In examining the documentation of the PAC meetings the following can be noted:

- Eight elementary meetings, four secondary meetings, and one elementary/secondary meeting were held.
- The minutes/agendas of these meetings reflect compliance with the law: both groups discussed the current programs, possible funding cuts, regulation changes, and the programs for the upcoming year.
- A total of 104 Chapter 1 parents and 31 Migrant parents attended the elementary PAC meetings. A total of 32 Migrant parents attended the secondary PAC meetings.
- The attendance of migrant parents at PAC meetings decreased sharply from 1981-82 levels (by 63 parents at the elementary level and 54 parents at the secondary level).
- The attendance of Chapter 1 parents at PAC meetings improved over the number attending in 1981-82 (91 parents).

Both the elementary and secondary persons responsible for the parental involvment component indicated that improving parent attendance was one of their highest priorities.

IN WHICH PARENTAL INVOLVEMENT ACTIVITIES DO PARENTS EXPRESS THE GREATEST INTEREST?

A survey was sent to 400 randomly chosen parents of elementary children served by Chapter 1 with approximately 29% of the parents responding. The activities in which parents reported the most interest were Math and Reading Rainbow Kits, which are take-home kits containing activities parents can do with their children. Over 95% of the parents responding were interested or very interested in these activities. Parents were also interested in attending workshops that would teach them how to help their child in reading, math, or learning games that can be made at home.

Of less interest to parents than Rainbow Kits or workshops were activities such as helping with school events, attending PAC meetings, and working with children or teachers at the school.

WHAT ADDITIONAL INFORMATION DO WE HAVE ABOUT RAINBOW KITS?

This year, a survey of the parents of the 408 children receiving Rainbow Kits was conducted. If the survey was returned, the student received a free book, and the return rate was approximately 52%. Most parents (67%) thought the kits were of the appropriate difficulty level and also that their children had learned from working on the kits. However, the directions on some of the activities were reported as too difficult by approximately 40% of the parents. This is an increase from the previous year, although the kits were not changed. It may, however, indicate an area where modifications are needed.

Evaluations in previous years have documented that Rainbow Kits are somewhat expensive and do not generally have detectable short-term effects on student achievement. However, parents continue to indicate high levels of interest in activities that facilitate their working at home with their children. In the event that Rainbow Kits become prohibitively expensive, other take-home activities that are similar but less expensive might be considered.

RAINBOW KIT

HEALTH SERVICES

WHAT SERVICES WERE PROVIDED BY THE MIGRANT NURSE?

The Migrant Nurse:

- Saw 372 different students during the school year,
- Visited 54 different AISD campuses,
- Made 566 contacts with parents,
- Conducted a wide variety of health related services for students (see Figure 14), and
- Used over $17,000 to provide medical/dental services to 393 migrant students (see Figure 15).

Both the Migrant Nurse and the Chapter 1/Chapter 1 Migrant Administrator felt that the position should definitely be fulltime for 1983-84. This would allow time for serving more students and providing more services. Migrant Program teachers surveyed in the spring expressed some dissatisfaction with the Health Services provided. This may reflect the decreased availability of the Nurse, due to the decrease in her position from full- to halftime.

Activity	Number of Times Activity was Reported
Regularly Scheduled Exam	129
Nonscheduled Exam	28
Phone Contact	379
Referral to Medical Doctor	218
Referral to Dentist	241
Home Visit	35
Counseling/Teaching	176
Referral to Other Professional	36

Figure 14. TALLY OF VARIOUS NURSING ACTIVITIES FOR SEPTEMBER, 1982 THROUGH MAY, 1983.

Month	Duplicated Count of Students Served	Medical	Dentist	Pharmacy	X-Ray	Lab	Glasses	Total Spent	Average Spent Per Student
September	6	$ 66.00	$ 73.00	$ .00	$ .00	$ .00	$ 137.00	$ 276.00	$ 46.00
October	29	598.00	356.00	40.00	.00	21.00	300.00	1,315.00	45.34
November	36	376.00	1,065.00	309.51	.00	.00	150.00	1,900.51	52.79
December	17	128.00	1,125.00	.00	.00	.00	200.00	1,453.00	85.47
January	32	695.00	1,158.00	119.63	.00	28.00	150.00	2,150.63	67.21
February	32	567.00	421.00	181.51	.00	35.00	50.00	1,254.51	39.20
March	40	691.00	1,733.00	285.22	45.00	35.00	36.00	2,825.22	70.63
April	45	907.65	1,256.00	199.25	.00	24.00	100.00	2,486.90	55.26
May	56	958.00	1,594.00	411.42	130.00	12.00	230,00	3,695.42	65.99
TOTAL	293	$4,986.65	$9,141.00	$1,546.54	$175.00	$155.00	$1,353.00	$17,357.19	$ 59.24

Figure 15. SUMMARY OF MEDICAL EXPENSES PAID FOR BY MIGRANT PROGRAM FUNDS FOR SEPTEMBER, 1982 THROUGH MAY, 1983.

Migrant Student Record Transfer System (MSRTS)

The Migrant Student Record Transfer System (MSRTS) Clerk kept eligibility forms, log books, and other MSRTS records in the prescribed order. However, in interviewing the Clerk and assessing the reasons why a number of MSRTS timelines were not met, several reasons/concerns were identified:

- The Clerk did not receive the MSRTS objectives until the end of the year. Although she was told as things needed to be done, by not having the objectives she was not always able to plan ahead or anticipate problems;
- Both the Clerk and her supervisor were new to the MSRTS system in 1982-83;
- There was often a lack of coordination among the MSRTS Clerk, her supervisor, the community representatives, and their supervisors--a problem which should be somewhat alleviated by the staff being all located in one office in 1983-84; and
- Other tasks sometimes took priority over tasks related to the MSRTS deadlines, causing the MSRTS deadlines not to be met.

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ECIA Chapter 1

Appendix A

PEABODY PICTURE VOCABULARY TEST-REVISED

Instrument Description: Peabody Picture Vocabulary Test

Brief description of the instrument:

The PPVT-R is an individually administered, untimed standardized vocabulary test. The test requires subjects to respond to cue words by choosing from among four pictures the one that corresponds to the cue word. The words get progressively harder as the test proceeds. Specific cue words given depend on the subject's age and performance on the first few items. The subject reaches his or her "ceiling" when he or she is performing at chance level (defined as six errors in eight consecutive responses). The subject's raw score is based on two factors: how high the ceiling item is, and how many errors are made on the way. See the Test Manual for more detailed information.

To whom was the instrument administered?

To students in the Chapter 1 and Chapter 1 Migrant prekindergarten programs.

How many times was the instrument administered?

Twice to each student who was enrolled during both testing periods (September and April), once to others. All analyses are based on only those students with two scores. Each student was randomly assigned to one of the two alternate forms for the pretest, then given the other for the posttest.

When was the instrument administered?

The pretests were administered between September 20 and October 8, 1982, and the posttests were administered between April 19 and May 5, 1983.

Where was the instrument administered?

In the subjects' schools, either in the hall or in an empty room or office.

Who administered the instrument?

Migrant: The Chapter 1 Migrant Evaluator or an ex-teacher hired specifically for PPVT testing.

Chapter 1: The Chapter 1 Evaluation Assistant, or one of two ex-teachers and one ex-Head Start/Home Start director hired for testing.

What training did the administrators have?

All had extensive previous experience with the PPVT.

Was the instrument administered under standardized conditions?

No. There was variation in the noise level and privacy of the different settings. However, most students seemed attentive and eager to do well, so the effect of the potential distraction on scores is probably small.

Were there problems with the instrument or the administration that might affect the validity of the data?

All norms are based on subjects who achieved a "basal", defined as 8 consecutive correct responses. Many of the students we tested did not achieve basals, and increased error of measurement is probably associated with their scores.

Who developed the instrument?

Lloyd M. Dunn, Ph.D. and Leota M. Dunn.

What reliability and validity data are available on the instrument?

Over the age range we tested, reliabilities range from .70 to .84 (split-half), and from .76 to .77 (alternate forms). There are no concurrent nor predictive validity data available for the PPVT-R, except that it correlates .50 to .80 with the PPVT, which correlates strongly with other vocabulary tests and moderately with other achievement tests.

Are there norm data available for interpreting the results?

Yes. Standard score and percentile norms are provided for each month of chronological age.

PEABODY PICTURE VOCABULARY TEST-REVISED

Purpose

The Peabody Picture Vocabulary Test-Revised (PPVT-R) was administered to Chapter 1 and Chapter 1 Migrant prekindergarten students to help answer the following decision and evaluation questions:

Chapter 1

Decision Question D3: Should the Chapter 1 Early Childhood Education Program be continued, modified, or discontinued?

Evaluation Question D3-1: Was the objective of the Early Childhood Program met?

Chapter 1 Migrant

Decision Question D1: Should the Early Childhood Education Component be continued as it is, modified, or deleted?

Evaluation Question D1-1: Were the achievement objectives met?

Evaluation Question D1-2: How do the pre/posttest gains made by the Migrant students on the Peabody Picture Vocabulary Test compare with the Chapter 1 and Title VII students?

Evaluation Question D1-3: How do the pre/posttest gains made by Migrant and Chapter 1 students this year compare with gains made in 1981-82?

Procedure

Because the PPVT-R is an individually administered test, three former teachers and one former Head Start/Home Start director were hired to help with testing. All Migrant testing was done by the Migrant Evaluator and one of the former teachers. Chapter 1 pretesting was done by the Chapter 1 Evaluation Assistant and another former teacher; the third former teacher and the former Head Start/Home Start director helped the Evaluation Assistant with Chapter 1 posttesting. All testers were female.

In September, a memo (see Attachment A-1) was sent to Chapter 1 and Chapter 1 Migrant Pre-K teachers telling them the weeks during which testing would be done and how to prepare students to do their best. During the week before testing began, teachers were telephoned and specific testing dates were arranged. Most testing was done between September 20 and September 29, 1982. The few children who were absent on their class' testing day were tested on September 30, October 1, or October 4.

Students were randomly assigned to one of the two alternate forms for the pretest, then given the other form as the posttest. Two students from each program were inadvertently given the same form on the pre- and posttest. Because the tests were administered seven months apart and the children had never been given the correct answers to the items, data from these four students were included in the analyses.

Examination of pretest standard scores revealed a 14-point mean difference in scores obtained by the two Chapter 1 testers ($t = 4.47$, $p<.001$, $df = 118$.) Although no tester effect was obtained for Migrant test administrators, it was decided to have each child in each program posttested by the same tester by which he or she had been pretested, in the hope that gain scores would be unaffected by any tester effects.

All testing was done in the students' schools, in an empty classroom, office, library, or cafeteria. All testing was done in English.

In November, teachers were given their students' results in the form of standard scores (age-corrected scores with a mean of 100 and standard deviation of 15 -- see Attachment A-2 for a sample class report). In April 1983, a memo (Attachment A-3) was sent to teachers and principals advising them that posttesting would be done soon. Specific dates were again scheduled with the teachers by telephone. Most children were posttested between April 19, and April 29, 1983, with makeups for absent children on May 2-5. Most testing was again done in empty classrooms or offices, though children were tested in public hallways in two schools.

The teachers received their students' posttest results and mean class and program gains in mid-May, along with a memo explaining the results (Attachment A-4).

All tests, pre and post, were scored by the testers or the Chapter 1 Evaluation Intern, and each test was checked for accuracy by another ORE staff member.

Analyses

Standard score gains from pre- to posttest were evaluated separately for each program with a paired-sample t-test. The programs were compared using a multiple regression approach to analysis of covariance, with pretest score as the covariate. First, a "known-true" model is constructed, with posttest score as the dependent variable and the six predictor vectors described in Attachment A-5 (as Model 1). This model contains separate linear, curvilinear, and group membership components for each program, and allows for independent curvilinear regression lines. Six other possible models are than constructed (Models 2-7, Attachment A-5) each having fewer predictor vectors than the "known-true" model. Weights are obtained for the vectors in each model using the SPSS Regression package.

A systematic series of model comparisons is then done, until the model is found which combines the best prediction of posttest scores (i.e., the lowest residual sum of squares) with the fewest predictor vectors. All model comparisons are evaluated by an F test. See Attachment A-5 page 2 for the F formula and a flow chart of model comparisons.

Results

All results reported include only those students with both pre- and posttest scores.

Were the Achievement Objectives Met?

For Chapter 1, the achievement objective was specified in terms of percent of students making certain standard score gains, e.g., 33% will gain more than 20 points, etc. Figure 1 shows the expected and actual percent of students in each gain category, both for all students and for the subcategory of students with basals. As the top table shows, when all students are included, the program clearly exceeded its goals. The first three gain categories each had more students than expected, while fewer students than expected made very small or no gain.

Interpretation of the bottom figure, which includes only those students with basals, is a little more difficult. It appears that many students in the highest gain category were those who did not have basals on the pretest. The overall pattern of these results, however, is still very positive.

Chapter 1 Migrant did not set explicit achievement objectives.

Were the Programs Effective in Improving Student Achievement?

Because PPVT-R standard scores have the same mean and standard deviation for all ages, any within-program pre- to posttest gain can be tested against a null hypothesis of no gain. Figure 2 shows mean pre- and posttest standard scores for each program, for all students and also for the subcategory of students with basals. As the table shows, Chapter 1 students and Chapter 1 Migrant students each made highly reliable gains.

How Do Gains Made From Pre- to Posttest Compare Among the Two Programs?

Figure 3 shows the results of the model comparisons described in the Analyses section. As the table shows, Model 6 best describes the data, for all students and also for the subgroup of students who achieved basals. Model 6 produces parallel, linear regression lines and represents a statistically reliable difference between programs. In other words, if pretest score is controlled for, Chapter 1 students made reliably higher gains than Migrant students. Figure 4 shows the plots of the regression lines for all students. When the regression lines for only those students with basals are plotted, the pattern is the same.

How do this year's gains compare to last year's?

Figure 7 shows the mean pretest and posttest PPVT-R standard score, and the mean gain, for each program in 1981-82 and 1982-83. For Chapter 1, this year's mean pretest score is similar to last year's, but this year's posttest mean is higher, representing a larger average gain this year. A similar pattern was obtained for Migrant Students, but the increased gain from 1981-82 to 1982-83 was not as great. Figure 8 shows these gains in graphic form.

Other Findings of Interest.

A very high negative correlation between pretest standard score and gain was discovered ($r = -.59$ for all students, $-.65$ for students with basals, $p<.001$ for both correlations). The correlations were similar in magnitude for Chapter 1 and Migrant.

It is well known that any correlation between pretest and gain will almost always be negative, because of regression to the mean. But the magnitude of the obtained correlations seemed too great to be statistical artifact. Moreover, participants in the prekindergarten program had been selected by an earlier screening test, not the PPVT-R pretest. There are those who hold that measuring gains from the so-called "second pretest," as was done here, effectively controls for the effect of regression to the mean. This is a controversial matter, however, and it was decided to take the most conservative approach and remove the regression effect statistically, using the formula in Attachment A-6.

Correlations between pretest and gain, corrected for regression to the mean, are $-.68$ and $-.64$ for all students and those with basals, respectively ($p<.001$ for both). Again, the separate correlation values for Chapter 1 and Migrant were very similar.

Children with low pretest scores made bigger gains than those with higher pretest scores, even with regression effects accounted for. Figures 4 and 5 show this effect in two different ways. Figure 4 illustrates the regression lines predicting posttest score from pretest score, for all Chapter 1 and Migrant students. The third line, labeled "No Gain", represents a theoretical group of students whose posttest and pretest scores were the same. Figure 5 shows the same relationships, but illustrates the prediction of gain rather than posttest score. The horizontal line represents the theoretical "No Gain" group.

One possible explanation for this phenomenon is that the Early Childhood curriculum is tailored to the needs of the lowest-achieving participants and that children who are relatively more advanced in September are not benefiting as much, at least as measured by their vocabularies. Another possibility is that teachers tend to give more attention to the lower-achieving students.

Another interesting finding was a wide variation in the average gains made by classes. As shown in Figure 6, mean gains ranged from 14.0 to 23.7 among Chapter 1 classrooms, and from 1.6 to 22.0 among Migrant classrooms.

All Students

Standard Score Gain	Objective	Actual	N=116
More than 20 points	33%	35%	
11-20 points	24%	34%	
6-10 points	10%	15%	
1-5 points	14%	8%	
0 or fewer points	18%	8%	

Students with Basals

Standard Score Gain	Objective	Actual	N=102
More than 20 points	33%	31%	
11-20 points	24%	35%	
6-10 points	10%	17%	
1-5 points	14%	8%	
0 or fewer points	18%	9%	

Figure 1: COMPARISON OF CHAPTER 1 GAIN OBJECTIVES WITH ACTUAL GAINS.

All Students

Chapter 1

	Mean Standard Score	t*	p	N
Pretest	72.87	-14.32	<.001	116
Posttest	90.23			

Migrant

	Mean Standard Score	t*	p	N
Pretest	66.24	-8.61	<.001	102
Posttest	79.16			

Students With Basals Only

Chapter 1

	Mean Standard Score	t*	p	N
Pretest	76.65	-12.86	<.001	102
Posttest	92.78			

Migrant

	Mean Standard Score	t*	p	N
Pretest	74.48	-6.83	<.001	71
Posttest	85.96			

Figure 2. COMPARISONS OF PRE- AND POSTTEST STANDARD SCORES.

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*t - test for correlated samples.

ALL STUDENTS

Model 1 vs Model 5 -- Curvilinear vs Linear
Model 1 ESS = 25684.25 F(2,212) = 0.29 (n.s)
Model 5 ESS = 25754.71

Model 5 vs Model 6 -- Common Linear Slopes
Model 5 ESS = 25754.71 F(1,214) = 0.26 (n.s)
Model 6 ESS = 25786.43

Model 6 vs Model 7 -- Common Intercepts
Model 6 ESS = 25786.43 F(1,215) = 23.72 (p<.01)
Model 7 ESS = 28631.29

STUDENTS WITH BASALS

Model 1 vs Model 5 -- Curvilinear vs Linear
Model 1 ESS = 16379.54 F(2,167) = 0.75 (n.s)
Model 5 ESS = 16525.88

Model 5 vs Model 6 -- Common Linear Slopes
Model 5 ESS = 16525.88 F(1,169) = 0.26 (n.s)
Model 6 ESS = 16551.69

Model 6 vs Model 7 -- Common Intercepts
Model 6 ESS = 16551.69 F(1,170) = 14.46 (p<.01)
Model 7 ESS = 17959.41

Figure 3: OBTAINED F VALUES FROM MODEL COMPARISONS.

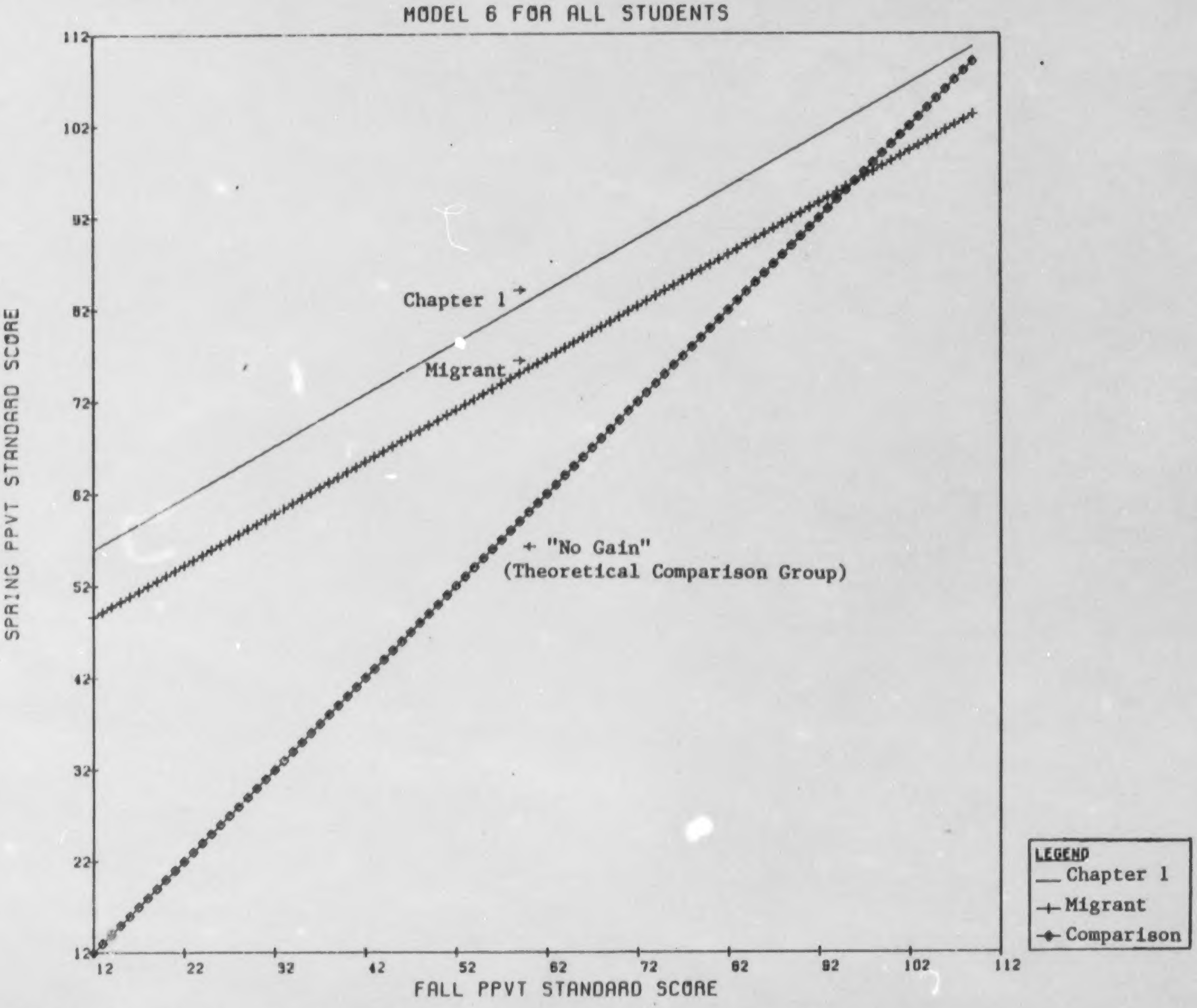

Figure 4: PPVT-R POSTTEST SCORES AS A FUNCTION OF PRETEST SCORES, BY PROGRAM.

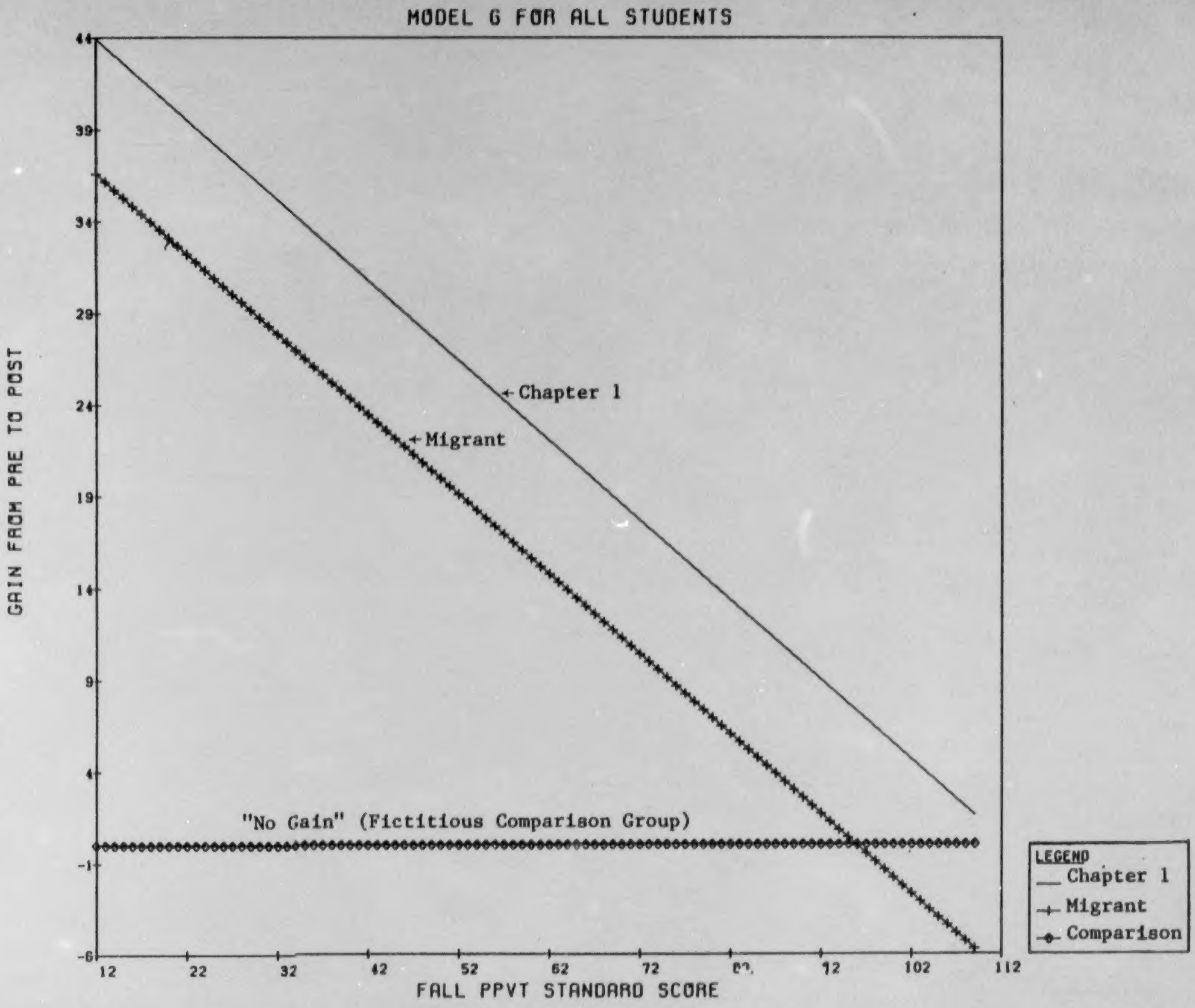

Figure 5: PPVT-R GAINS AS A FUNCTION OF PRETEST SCORES, BY PROGRAM.

Chapter 1

	Pre	Post	Gain	N
	72.9	90.2	17.4	116
School 1	74.4	88.6	14.2	12
School 2	70.7	90.0	19.4	13
School 3	76.4	90.5	14.1	15
School 4	80.9	97.6	16.8	8
School 5	67.2	88.8	21.7	6
School 6	77.3	91.3	14.0	15
School 7	59.4	83.1	23.7	15
School 8	73.9	92.4	18.6	16
School 9	75.9	91.8	15.9	16

Migrant

	Pre	Post	Gain	N
	66.2	79.2	12.9	102
School 10	72.3	82.4	10.1	12
School 11	64.3	72.0	7.7	10
School 12	75.2	86.1	10.8	13
School 13	60.2	82.2	22.0	6
School 14	62.9	65.9	3.0	9
School 15	58.8	72.2	13.5	8
School 16	65.4	67.0	1.6	8
School 17	71.9	90.4	18.5	12
School 18	60.8	79.2	18.4	13
School 19	63.0	84.6	21.6	11

NOTE: (Post-Pre) is not always equal to gain, due to rounding.

Figure 6: MEAN STANDARD SCORES - STUDENTS BY SCHOOL.

		Mean Pretest Score	Mean Posttest Score	Gain
Chapter 1	1981-82	72.60	86.80	14.35
	1982-83	72.87	90.23	17.36
Migrant	1981-82	66.15	77.67	11.16
	1982-83	66.24	79.16	12.92

Figure 7: MEAN PPVT-R PRETEST, POSTTEST, AND GAIN SCORES FOR 1981-82 AND 1982-83, BY PROGRAM.

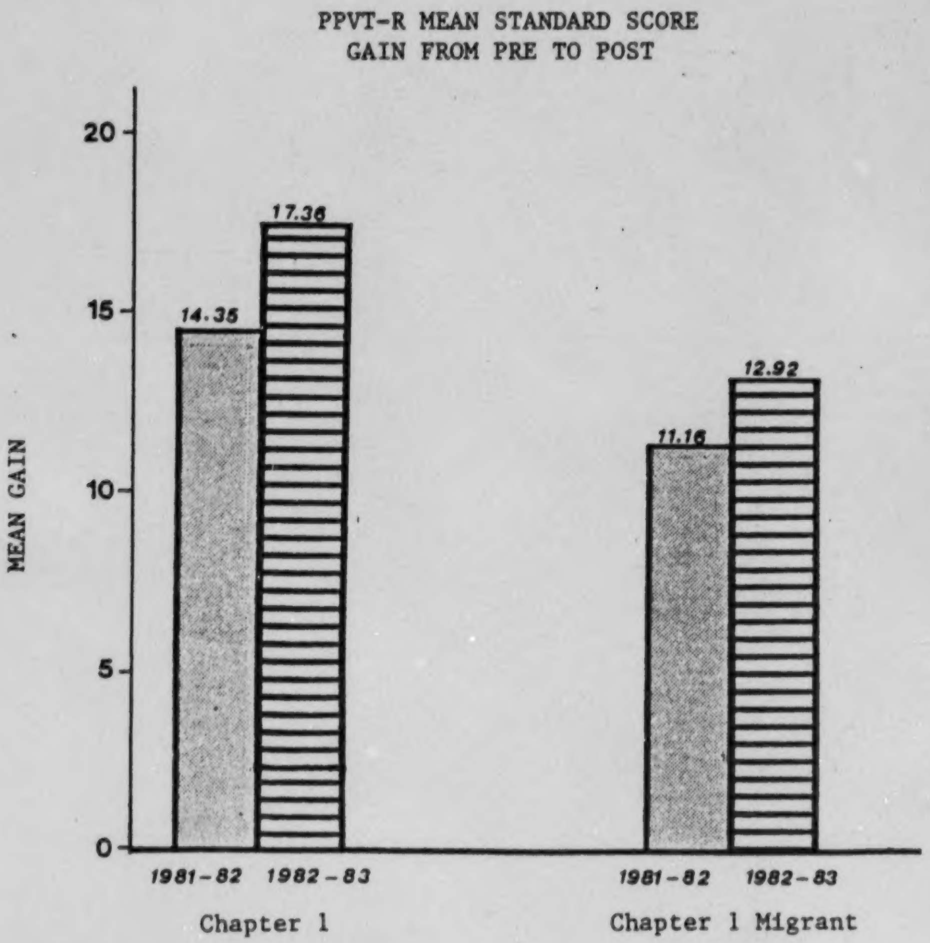

Figure 8. COMPARISON OF GAINS FROM PRETEST TO POSTTEST FOR 1981-82 and 1982-83, BY PROGRAM.

82.37

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

Attachment A-1

September 7, 1982

TO: Chapter 1 and Migrant Program Early Childhood Teachers

FROM: Catherine Christner CC and Karen Carsrud KC

SUBJECT: Early Childhood Achievement Pretest

The revised version of the Peabody Picture Vocabulary Test (PPVT-R) will be used again this year to measure early childhood achievement results. The only change from last year is an earlier testing date. The pretest will be administered the last two weeks of September: September 20 - October 1. Makeups will be the first week of October.

Several teachers in the past have had very good success in getting high student attendance and positive student attitudes on the day of testing. The children were told about the testing beforehand. Notes were sent home asking parents to be sure their child gets plenty of sleep and comes to school on the day of testing.

Enclosed is an Early Childhood Roster that we need you to complete as soon as possible and return to us so we can prepare the test records for each child. In addition to the children's name, please list the day, month, and year of birth and whether they are English, Spanish, or Other Language Dominant. For Chapter 1 teachers only, please list the screening score for each child. We will forward this information to Anita Uphaus for her use. Please return the completed original by Friday, September 10 to Catherine Christner.

We will be calling you very soon to set a date for testing your class. We will conduct the testing in the morning. Each child will be tested individually and be out of class five to ten minutes.

Your cooperation and help are appreciated. Please call if you have any questions.

CC:lg
Enclosures

Approved: Freda Holley
Director, Office of Research and Evaluation

Approved: Ruth Mac Allister
Assistant Superintendent for Elementary Education

cc: Anita Uphaus
Timy Baranoff
Lee Laws
Ambrosio Melendrez
Principals with Chapter 1 and Migrant
Early Childhood Teachers

Attachment A-2

```
PICTURE VOCABULARY RESULTS      -      CHAPTER 1 AND MIGRANT  -                 11/01/82

                                       STANDARD                POSSIBLY
NAME                                    SCORE          LANG    INVALID

                                          23           SPAN
                                           8           SPAN
                                          98           ENG
                                          48           ENG
                                          94           ENG
                                          64           ENG
                                          73           ENG
                                          70           ENG
                                          86           ENG
                                          79           ENG
                                          75           ENG
                                          83           ENG
                                          68           ENG
                                         104           ENG
                                          92           ENG


CLASS TOTALS                            1065
TOTAL STUDENTS                            15     STUDENTS WITH VALID SCORES-  15
CLASS AVERAGES                             71.00

CHAPTER I PROGRAM TOTAL                 9167
TOTAL STUDENTS                           126     STUDENTS WITH VALID SCORES- 126
CHAPTER I PROGRAM AVERAGE                  72.75

MIGRANT PROGRAM TOTAL                   6806
TOTAL STUDENTS                           104     STUDENTS WITH VALID SCORES- 104
MIGRANT PROGRAM AVERAGE                    65.44
```

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

April 11, 1983

TO: Chapter 1 and Migrant Program Early Childhood Teachers

CC KC

FROM: Catherine Christner, Perry Sailor, and Karen Carsrud

SUBJECT: Early Childhood Achievement Posttest

As in previous years, Early Childhood participants will be administered the Peabody Picture Vocabulary Test-Revised (PPVT-R) as a posttest to measure achievement gains. This spring's testing will be done during the last two weeks of April: April 18-29. Makeups will be administered May 2-6.

A high attendance rate and positive student attitudes on the day of testing are important. To help in these areas in the past, teachers have told the children about the testing beforehand, and sent notes home asking parents to be sure their child gets plenty of sleep and comes to school on the day of testing.

We will be calling you very soon to set a date for testing your class. We will conduct the testing in the morning, and would like to do it as soon after breakfast as possible. As you know, each child is tested individually and will be out of class from ten to fifteen minutes.

Your cooperation and help are greatly appreciated. Please call one of us at 458-1227 if you have any questions.

APPROVED: Freda M. Holley
Director of Office of Research and Evaluation

APPROVED: Ruth MacAllister
Assistant Superintendent of Elementary Education

PS:sc

cc: Anita Uphaus
Timy Baranoff
Lee Laws
Ambrosio Melendrez
Principals with Chapter 1 and Migrant Program Early Childhood Teachers

82.37

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

Attachment A-4
(Page 1 of 2)

May 13, 1983

TO: Chapter 1 and Migrant Program Early Childhood Teachers

CC KC

FROM: Catherine Christner and Karen Carsrud

SUBJECT: Peabody Picture Vocabulary Test-Revised Posttest Scores

Enclosed are the results from the posttesting of your students. For each student posttested you will find a posttest standard score. If the student was also pretested he/she will have a pretest score listed and a gain score listed. Student's language dominance at the time of pretesting is listed. If we felt that for some reason a student did not have a valid score, that is also indicated on your printout (these students' results were not used in the computation of class or program gains).

For each class and each program an average pretest score, an average posttest score, and an average gain score were computed. These data for your class and program are listed.

Please call if you have questions.

CC:lg
Enclosure

cc: Anita Uphaus
Ambrosio Melendrez
Lee Laws
Timy Baranoff
Principals with Chapter 1 or Migrant Early Childhood Teachers

APPROVED: Freda M Holley
Director, Research and Evaluation

APPROVED: Ruth MacAllister
Assistant Superintendent for Elementary Education

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05/16/83                                  AUSTIN INDEPENDENT SCHOOL DISTRICT                  PAGE
PROG: MG-PRYP1                            OFFICE OF RESEARCH AND EVALUATION

                                            PEABODY STANDARD SCORE RESULTS
                                               CHAPTER 1 AND MIGRANT

( )            -

           STUDENT                     STANDARD SCORES       LANG
           NAME                        PRE   POST  GAIN      DOM

                                             104             ENG
                                        84    95    11       ENG
                                        91   103    12       ENG
                                        41    77    36       ENG
                                        50    69    19       ENG
                                        32    72    40       ENG
                                        32    55    23       ENG
                                        71    93    22       ENG
                                        69    87    18       ENG
                                        94    99     5       ENG
                                        33    80    47       ENG
                                        32    85    53       ENG
                                        45    74    29       ENG
                                        69    74     5       ENG
                                        70    94    24       ENG
                                        78    90    12       ENG
                                        94                   ENG

                                                                 STUDENTS PRETESTED          16
                                                                 STUDENTS POSTTESTED         16
                                                                 STUDENTS WITH BOTH VALID
           CLASS AVERAGES              _59.40 _83.13 _23.73      PRE AND POSTTEST SCORES     15


                                                                 STUDENTS PRETESTED         128
                                                                 STUDENTS POSTTESTED        128
                                                                 STUDENTS WITH BOTH VALID
           CHAPTER 1 PROGRAM AVERAGES  _73.33 _90.36 _17.03      PRE AND POSTTEST SCORES    117

           * = POSSIBLY INVALID. GAIN NOT INCLUDED IN CALCULATIONS.
```

82.37

A-19

Attachment A-4
(Page 2 of 2)

Models Used in Two-Group Analysis of Covariance

Variables

U = Unit vector

1 = posttest

2 = pretest

3 = pretest if group 1; 0, otherwise

4 = pretest if group 2; 0, otherwise

5 = pretest squared (variable 2 squared)

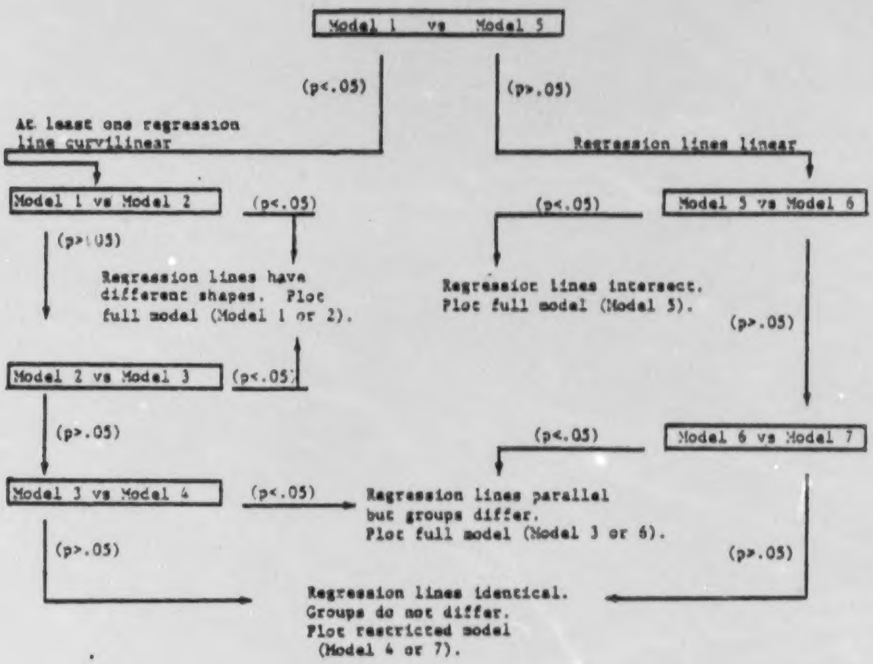
6 = variable 3 squared

7 = variable 4 squared

8 = 1 if group 1; 0, otherwise

Models		Comments
Model 1	1 = U + 3 + 4 + 6 + 7 + 8	Allows independent curvilinear regression lines.
Model 2	1 = U + 3 + 4 + 5 + 8	Requires quadratic component of lines to be equal for each group. Intercepts may differ.
Model 3	1 = U + 2 + 5 + 8	Requires parallel curvilinear regression lines. Intercepts may differ.
Model 4	1 = U + 2 + 5	Requires parallel curvilinear regression lines with common intercept.
Model 5	1 = U + 3 + 4 + 8	Allows independent (different) linear (straight line) regression lines.
Model 6	1 = U + 2 + 8	Requires common linear slopes; and intercepts may differ.
Model 7	1 = U + 2	Requires common linear slopes and common intercepts.

FLOW CHART OF MODEL COMPARISONS


Model 1 vs Model 5
(p<.05)
(p>.05)
At least one regression line curvilinear
Regression lines linear
Model 1 vs Model 2
(p<.05)
(p<.05)
Model 5 vs Model 6
(p>.05)
Regression lines have different shapes. Plot full model (Model 1 or 2).
Regression lines intersect. Plot full model (Model 5).
(p>.05)
Model 2 vs Model 3
(p<.05)
(p>.05)
(p<.05)
Model 6 vs Model 7
Model 3 vs Model 4
(p<.05)
Regression lines parallel but groups differ. Plot full model (Model 3 or 6).
(p>.05)
(p>.05)
Regression lines identical. Groups do not differ. Plot restricted model (Model 4 or 7).

Calculation of F for Model Comparisons

$$F = \frac{(ESS_r - ESS_f)/df_1}{ESS_f/df_2}$$

Where

ESS_r = residual sum of squares for the model with fewer predictors (restricted model).

ESS_f = residual sum of squares for the model with more predictors (full model).

df_1 = the number of independent predictor vectors in the full model minus the number in the restricted model.

df_2 = the number of cases minus the number of independent predictors in the full model.

$$r_{ag} = \frac{r_{xy} + \frac{\delta_x}{\delta_y}(1-r_{xx})\ *}{\left(\frac{1}{\delta_y}\right)\left(\sqrt{r_{xx}}\right)\sqrt{\delta_y^2 - \delta_x^2(1-r_{xx}) - \delta_z^2(1-r_{zz})}}$$

Where: r_{ag} = corrected correlation between pretest and gain.
r_{xy} = observed correlation between pretest and gain.
r_{xx} = reliability of pretest.
r_{zz} = reliability of posttest.
δ_x = observed standard deviation of pretest scores.
δ_y = observed standard deviation of gain scores.
δ_z = observed standard deviation of posttest scores.

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*Thomson, G.H. A formula to correct for the effect of errors of measurement or the correlation of initial values with gains. Journal of Experimental Psychology, 1924, 7, 321-324.

ECIA Chapter 1

Appendix B

IOWA TESTS OF BASIC SKILLS

Instrument Description: Iowa Tests of Basic Skills, 1978 Edition, Form 7

Brief description of the instrument:

The ITBS is a standardized multiple-choice achievement test battery. Level 5 was given to kindergarten students to measure skills in the areas of listening (spring only), language (fall and spring), and math (spring only). Levels 7 and 8 were given to grades 1 and 2, respectively, to measure skills in the areas of word analysis, vocabulary, reading comprehension, spelling, math concepts, math problems, and math computation. ITBS levels 9-14 were administered to grades 3-8 with the test level for students in grades 4-6 chosen on the basis of their previous achievement scores (with teacher review). Levels 9-14 include subtests in all the areas mentioned for levels 7 and 8, except for word analysis. In addition, levels 9-14 include subtests measuring capitalization, punctuation, usage, visual materials, and reference materials.

To whom was the instrument administered?

All elementary and junior high students, grades K-8. Special education students were exempted as per Board Policy 5127 and its supporting administrative regulation. Students of limited English proficiency (LEP) were not exempt, but could be excused after one test on which they could not function validly. Scores for students who were monolingual or dominant in a language other than English were not included in the school or District summaries.

How many times was the instrument administered?

Once to each student in grades 1-8, twice to students in kindergarten.

When was the instrument administered?

Kindergarten students were tested the week of September 7-10. The elementary schools administered the test April 19, 20, and 21 to students in grades K-6. Students in grades 7 and 8 were tested on February 15, 16, and 17. Tests were administered in the morning. Make-ups were administered the week after the regular testing.

Where was the instrument administered?

In each AISD elementary and junior high school, usually in the student's regular classroom.

Who administered the instrument?

Classroom teachers in the elementary schools. In the junior high schools, the counselor or principal administered the test over the public address system using taped directions provided by ORE. Teachers acted as test proctors in their classroom at these schools.

What training did the administrators have?

Building Test Coordinators participated in planning sessions prior to the testing. Teacher training was the responsibility of the Building Test Coordinator. However, teacher inservice training was available from ORE upon request. Teachers and counselors received written instructions from ORE, including a checklist of procedures and a script to follow in test administration.

Were there problems with the instrument or the administration that might affect the validity of the data?

No known problems with the instrument. Problems in the administration are documented in the monitors' reports which are available at ORE.

Who developed the instrument?

The University of Iowa. The ITBS is published by the Riverside Publishing Company.

What reliability and validity data are available on the instrument?

The reliability of individual subtests and area totals, as summarized by Kuder-Richardson Formula 20 coefficients, ranges from .75 to .97, across test levels. Coefficients for the total battery range from .94 to .99, across test levels. Equivalent-forms reliability coefficients, calculated for grades 3-8, range from .71 to .92, across subtests and area totals. The issues of content and construct validity are addressed in the publisher's preliminary technical summary, pp.13-15.

Are there norm data available for interpreting the results?

Norm data are available in the Teacher's Guide. The Teacher's Guide provides empirical norms (grade equivalent, percentile, stanine) for the fall and spring. Interpolated norms are available for midyear. National, large city, and school building norms are available.

IOWA TESTS OF BASIC SKILLS

Purpose

Results of the Iowa Tests of Basic Skills were used to answer the following decision and evaluation questions from the Chapter 1 Evaluation Design for 1982-83.

> Decision Question D1: Should the Chapter 1 Reading Improvement Program be modified? If so, how?
>
> > Evaluation Question D1-1: Were the objectives of the Chapter 1 reading component met?
> >
> > Evaluation Question D1-3: Did students served in the various locations (classroom, lab, or both):
> >
> > a) appear to be different in pretest ability, or
> > b) differ in achievement gains?
> >
> > Evaluation Question D1-4: For students who were receiving Title I services prior to desegregation (in 1979-80), were there differences in achievement between students who attended a Title I/Chapter 1 school after desegregation versus those who did not?
> >
> > Evaluation Question D1-5: Did retainees served by Chapter 1 show greater achievement gains than a matched group of retainees who were not served by Chapter 1?
> >
> > Evaluation Question D1-6: Did low-achieving kindergarten students in Chapter 1 schools where kindergarteners were served by the Chapter 1 program differ in achievement gains from kindergarten students in Chapter 1 schools that did not serve kindergarten?
>
> Decision Question D2: Should Schoolwide Projects be continued, expanded, or revised? If so, how?
>
> > Evaluation Question D2-1: Were the objectives of Schoolwide Projects met?
> >
> > Evaluation Question D2-2: How did one-year achievement gains of students in the Schoolwide Projects compare with the gains made by students in Regular Chapter 1 schools for:
> >
> > a) low-achieving students, and
> > b) higher-achieving students?

Evaluation Question D2-3: How did the achievement gains of students in Schoolwide Projects for three years compare with gains of students in Regular Chapter 1/Title I schools for three years?

Evaluation Question D2-4: What has happened to the achievement and enrollment patterns of students who were in either Schoolwide Projects or Regular Chapter 1/Title I schools at the beginning of the Schoolwide Projects, and in the same type of school in subsequent years?

Evaluation Question D2-7: Did students in Schoolwide Projects for three years differ in achievement gains from a group of students in Regular Title I/Chapter 1 schools, matched for age, sex, ethnicity, low-income status, LEP status, and pretest ability?

Decision Question D3: Should the Chapter 1 Early Childhood Education Program be continued, modified, or discontinued?

Evaluation Question D3-3: Does special attention by instructional coordinators to first grade classes including former E.C. students influence their achievement? Can methods which help be identified?

Procedure

The Iowa Tests of Basic Skills were administered to K-8 students. Classroom teachers administered the tests, although a standardized pre-recorded tape was played over the public address system in each school. Teachers were provided a script of these instructions, in the event the tape was not audible for some reason. In addition, time was provided on the tape for teachers to answer students' questions concerning the instructions.

A longitudinal data file was built containing demographic and test score information on all students from the following years and grade levels:

Grades	Year
K-6	1979-80
K-7	1980-81
K-8	1981-82
K-9	1982-83

This longitudinal data file (called BIG file) was used to create smaller files that could be used to answer specific questions. The file contains information about Chapter 1 status, school and teacher codes, and Migrant, SCE, LEP, and Special Education status for each year. More details about the smaller files are given in the sections of the appendix dealing with specific evaluation and decision questions.

Analyses

The major analyses used in this appendix were a series of regression model comparisons. These analyses were conducted using "SORE SPOT" on the U.T. CDC computer (SPSS package.) Appendix A (Attachment A-5) of this report discusses in detail the models and comparisons which were used. Briefly, the comparisons test the following hypotheses:

- Is the relationship between the pre- and posttest linear or curvilinear?
- If the relationship is curvilinear, is the degree of curvilinearlity the same for each group?
- Are the regression lines for each group parallel or do they have different slopes?
- If the regression lines are parallel, are the lines the same, or do they have different intercepts?

In all analyses, students who were missing either a pretest or posttest score were omitted. In addition, students with special circumstances marked on either their pre- or posttest scores were omitted. LEP and Special Education students with valid (not for experience only) pre- and posttest scores were included. Throughout the report, the dependent variable is the Reading Total grade equivalent score for each student unless otherwise noted (except at kindergarten, where Language Total grade equivalent was used.) Because the Chapter 1 teacher at Bryker Woods died during the year and the position was not filled, those students at Bryker Woods were not included in the analyses.

Summary of Results by Topic

Were the objectives of the two Chapter 1 components (Regular and Schoolwide Projects) met for 1982-83?

In order to measure the objectives for each component, students were selected if:

- o they were served by the same component on both reports, and
- o they had both pre- and posttest scores.

Then, gains in achievement were measured for each student on the ITBS Reading Total percentile score. (The exception was grade K, where a Language Total percentile score was used, and grade 1, where gains were not measured, but posttest achievement levels were tallied.)

Attachment B-1 contains the computer output for these analyses. The results indicate that the Regular Chapter 1 program *exceeded* its objectives at every grade level, *except grade 6,* where the objectives were met or close to being met. This is encouraging since objectives are based on last year's program results. The results indicate that gains this year were even greater than last year's (which were generally greater than for the previous year!)

For Schoolwide Projects, both Allison and Becker failed to meet their objectives at grade K, and *exceeded* their objectives at *grades 1-3.* Becker also *exceeded its objectives at grades 4 and 5* and, failed to meet its objectives at *grade 6.* (Gains for Allison and Becker combined are also included in Attachment B-1, but were not computed last year.) Figure B-1 summarizes this information.

	Objectives Met or Exceeded?		
Grade	Regular Chapter 1	Allison	Becker
K	Yes	No	No
1	Yes	Yes	Yes
2	Yes	Yes	Yes
3	Yes	Yes	Yes
4	Yes	-	Yes
5	Yes	-	Yes
6	Yes	-	No

Figure B-1. SUMMARY OF OBJECTIVES MET/NOT MET BY TYPE OF SCHOOL.

It should be noted that over half of Becker's kindergarten classes has 23 students per class, while each of the sixth-grade classes had 20-21 students. Thus, the Schoolwide Projects concept of smaller class sizes was not implemented at those grades and the results should not be considered to indicate a failure of the Schoolwide Projects concept, but rather an indication of practical difficulties in implementation.

Does serving kindergarten students with Chapter 1 help?

Low-achieving kindergartners (≤ 30th %ile) in two types of Regular Chapter 1 schools were compared: students in schools where the Chapter 1 program did not serve kindergarten, and schools where there was a kindergarten Chapter 1 program. Because the question to be answered concerned the overall effect on the student population of placing the Chapter 1 program at this grade level, all low-achieving students in the two types of schools were compared. (In general, schools with a grade configuration of K, 4-6 were less likely to serve kindergarten students.)

Ten Regular Chapter 1 schools were considered to have served kindergarten: (schools 102, 105, 109, 111, 116, 122, 135, 139, 141, and 145.) Three schools served three or fewer kindergartners, and these school were considered to have not served kindergarten. As in all analyses, students must have had both a pre- and posttest score, with no "special circumstances" for the testing. The dependent variable in each case was the spring Language Total grade equivalent score, and the pretest was the fall, 1982 Language Total grade equivalent score.

The results indicated no statistically significant difference between kindergarten students in the two types of schools. Attachment B-2 contains the F-tests for these comparisons. However, there was a nonsignificant trend for gains to be greater in schools where kindergarten students were served, suggesting a need for a more in-depth look at this question in future evaluations, so that guidance can be provided to school and project staff on this question.

	Pretest	Posttest	Gain	N
Schools Serving Kindergarten	-.507*	.317	.824	243
Schools Not Serving Kindergarten	-.484	.251	.705	236

Figure B-2. MEAN LANGUAGE TOTAL GRADE EQUIVALENT GAINS FOR LOW-ACHIEVING KINDERGARTEN STUDENTS IN TWO TYPES OF SCHOOLS.

*(A grade equivalent of P.493 corresponds to a -.507 computationally.)

Does the location in which Chapter 1 service occurs affect achievement gains?

Comparisons were made of achievement gains of three groups of Regular Chapter 1 students: students served in the reading lab, students served in their regular classroom, and students receiving service in both locations. To be included, students must have been served in the same way on both fall and spring service reports. At grades 2 and 4, there were not enough students served in both the classroom and lab for this group to be included (see Appendix C.) Thus, at those grade levels, the comparisons were between students served only in the classroom or only in the lab.

The results of the regression comparisons indicated that there were significant differences between groups at grades 1, 4, and 5. Attachment B-3 contains the F-tests for the regression analyses. At grade 4, the significant difference was between students served in the lab and the classroom, since no comparisons were made to students served in both locations. Figure B-4 shows the regression lines for the two groups, and indicates that extremely low-achieving students gained more when served in the lab, while there was not much difference between the groups when comparing scores of students with less extreme pretests. At grade 1 and 5, differences were found only between students served in both class and lab, versus the other two groups. The plots in Figures B-3 and B-5 show the regression lines for all three groups. The lines indicate that fifth graders served in the lab or the class gained more than students served in both locations. First graders served in both locations gained less if they had extremely low pretest scores, and more if they did not, when compared with students served in other ways. Attachment B-3 has the F-tests from the regressions.

These results do not provide much conclusive evidence for the benefits of any particular location of service, perhaps because the definitions of the locations have some problems associated with them, as discussed in Appendix C. More detailed "process" data are needed if this type of analysis is to be useful.

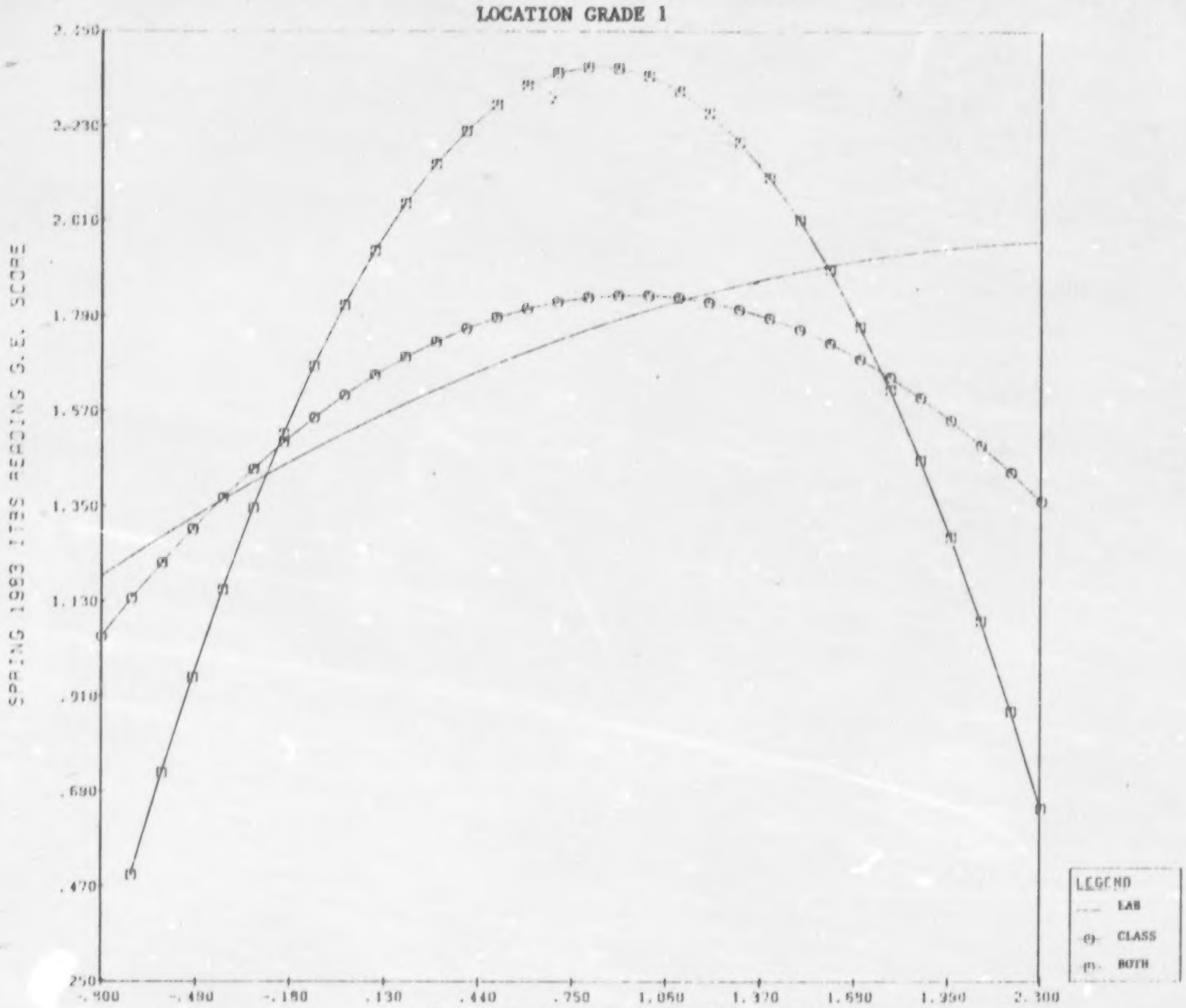


Figure B-3. REGRESSION LINE FOR CHAPTER 1 STUDENTS SERVED IN THREE LOCATIONS, GRADE 1.

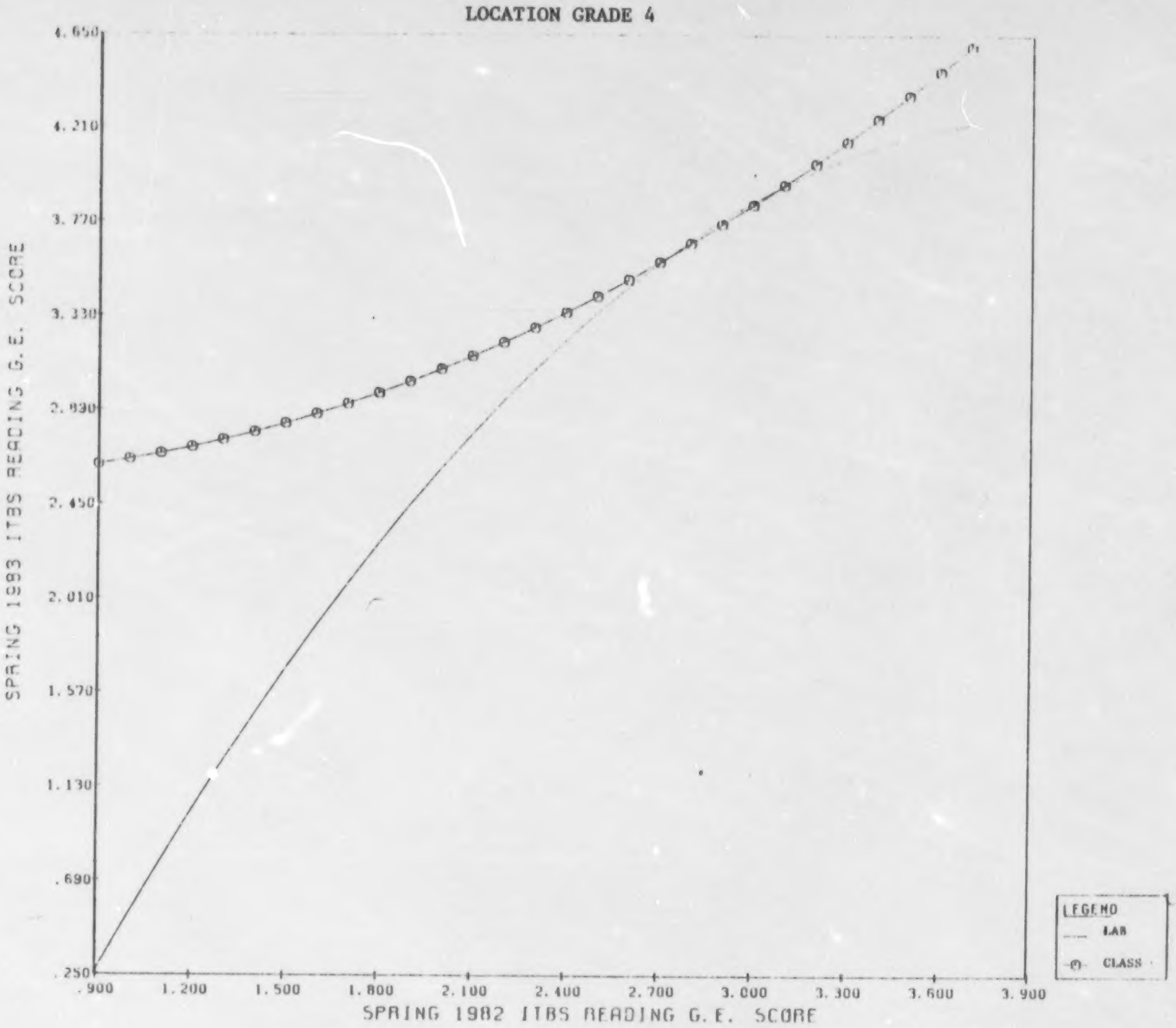
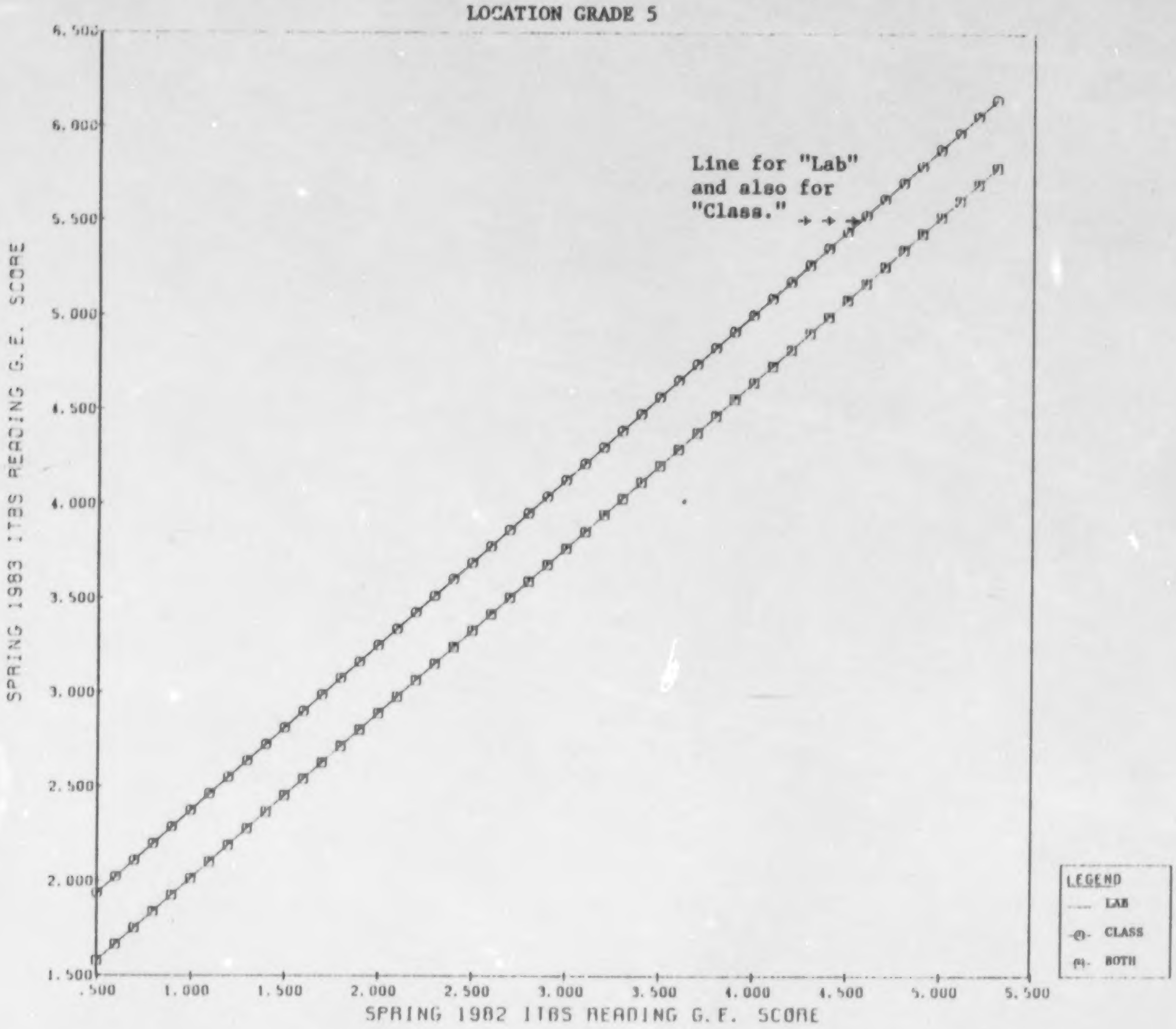


Figure B-4. REGRESSION LINE FOR CHAPTER 1 STUDENTS SERVED IN TWO LOCATIONS, GRADE 4.



Line for "Lab" and also for "Class."

Figure B-5. REGRESSION LINE FOR CHAPTER 1 STUDENTS SERVED IN THREE LOCATIONS, GRADE 5.

Were the enrollment and achievement patterns over the last three years different for the students in Schoolwide Projects versus Regular Title I/ Chapter 1 schools?

Figures B-6 through B-7 show the initial achievement levels for two cohorts of students: K-1 students in Schoolwide Project schools in 1980-81, and K-1 students in Regular Title I schools that year. The figures show the initial achievement levels of these students, and their achievement levels at the end of the 1982-83 year. In addition, the figures show the percentage of students who were still in the same type of school after three years.

The results suggest that Schoolwide Projects were better able to raise achievement levels of *the students remaining in the projects* than were the Regular Title I/Chapter 1 schools. In both grades K and 1, the Schoolwide Projects had a larger percentage of students below the 30th percentile in 1980-81 and a lower percentage (of those students remaining) below the 30th percentile in 1982-83. However, this information must be interpreted with caution, because a greater percentage of the Regular Title I/Chapter 1 cohort was no longer in a Title I school. This greater percentage of "turnover" may be related to the lower achievement gains of the Regular Title I/Chapter 1 schools' students. On the other hand, the lower turnover in the Schoolwide Projects cohort might have resulted from positive aspects of the projects! The data must be considered in the context of other analyses and results presented in this report.

Schoolwide Projects Cohort

Number of Students:	Grade K, Boehm, Fall, 1980	Grade 2, ITBS Reading Total, Spring 1983	
		Remaining in SWP	Not in SWP
≤ 30%ile	134 (68%)	22 (17%)	10
> 30%ile	31 (16%)	67 (52%)	8
No scores or inactive	32 (16%)	10 (8%)	42
Not on Grade Level		30 (23%)	8
TOTAL	197	129 (65% of original 197)	68

Regular Title I/Chapter 1 Cohort

Number of Students:	Grade K, Boehm, Fall, 1980 RT1	Grade 2, ITBS Reading Total, Spring 1983	
		Remaining in RT1	Not in RT1
≤ 30%ile	734 (62%)	154 (23%)	78
> 30%ile	220 (19%)	248 (38%)	134
No scores or inactive	217 (19%)	86 (13%)	204
Not on Grade Level		172 (26%)	95
TOTAL	1171	660 (56% of original 1171)	511

RT1 -- Regular Title I/Chapter 1
SWP -- Schoolwide Projects

Figure B-6. ACHIEVEMENT/ENROLLMENT PATTERNS FOR KINDERGARTNERS IN 1980-81, ACROSS THREE SUBSEQUENT YEARS.

Schoolwide Projects Cohort

Number of Students:	Grade 1, MRT, Fall, 1980	Grade 3, ITBS Reading Total, Spring 1983	
		Remaining in SWP	Not in SWP
≤ 30%ile	102 (45%)	33 (21%)	6
> 30%ile	92	72	15
No Scores or Inactive	33	29	40
Not on Grade Level		25 (16%)	7
TOTAL	227	159 (70% of original sample)	68

Regular Title I/Chapter 1 Cohort

Number of Students:	Grade 1, MRT, Fall, 1980 RT1	Grade 3, ITBS Reading Total, Spring 1983	
		Remaining in RT1	Not in RT1
≤ 30%ile	495 (44%)	152 (22%)	54
> 30%ile	433	264	118
No Scores or Inactive	199	111	232
Not on Grade Level		149 (22%)	47
TOTAL	1127	676 (60% of original sample)	451

RT1 -- Regular Title I/Chapter 1
SWP -- Schoolwide Projects

Figure B-7. ACHIEVEMENT/ENROLLMENT PATTERNS FOR FIRST-GRADERS IN 1980-81, ACROSS THREE SUBSEQUENT YEARS.

Does serving retainees with the Chapter 1 program enhance their reading achievement gains?

Figure B-8 shows the number of retainees in Chapter 1 schools, and whether or not they were served by Chapter 1. It should be noted that "retainees" at grade K are actually first graders who received their instruction in kindergarten, since kindergartners cannot actually be retained at a grade level that is optional anyway. There were insufficient numbers of retained students at grades 5 and 6 in Chapter 1 schools for comparison. However, regression analyses were performed on reading scores at grades K-4 to determine if Chapter 1 service was helpful. Attachment B-4 contains the F-tests for these analyses. No significant differences were found between the two groups at grades 1-4. At grade K, students who were not served gained more than students who were served by Chapter 1, as shown in Figure B-9. However, it is difficult to interpret this finding, because students who were retained at grade K and not served by Chapter 1 may have been retained partially for reasons of emotional maturity rather than academic problems, or they may have attended a paired school where kindergartners were not served.

	Retainees in Chapter 1 Schools	
Grade	Not Served by Chapter 1	Served by Chapter 1
K	295	38
1	177	125
2	69	63
3	41	48
4	41	38
5	19	26
6	16	7
TOTAL	658	345

Figure B-8. FREQUENCIES OF RETAINEES IN CHAPTER 1 SCHOOLS WHO WERE SERVED AND NOT SERVED BY CHAPTER 1 (Regular Chapter 1 Students Only.)

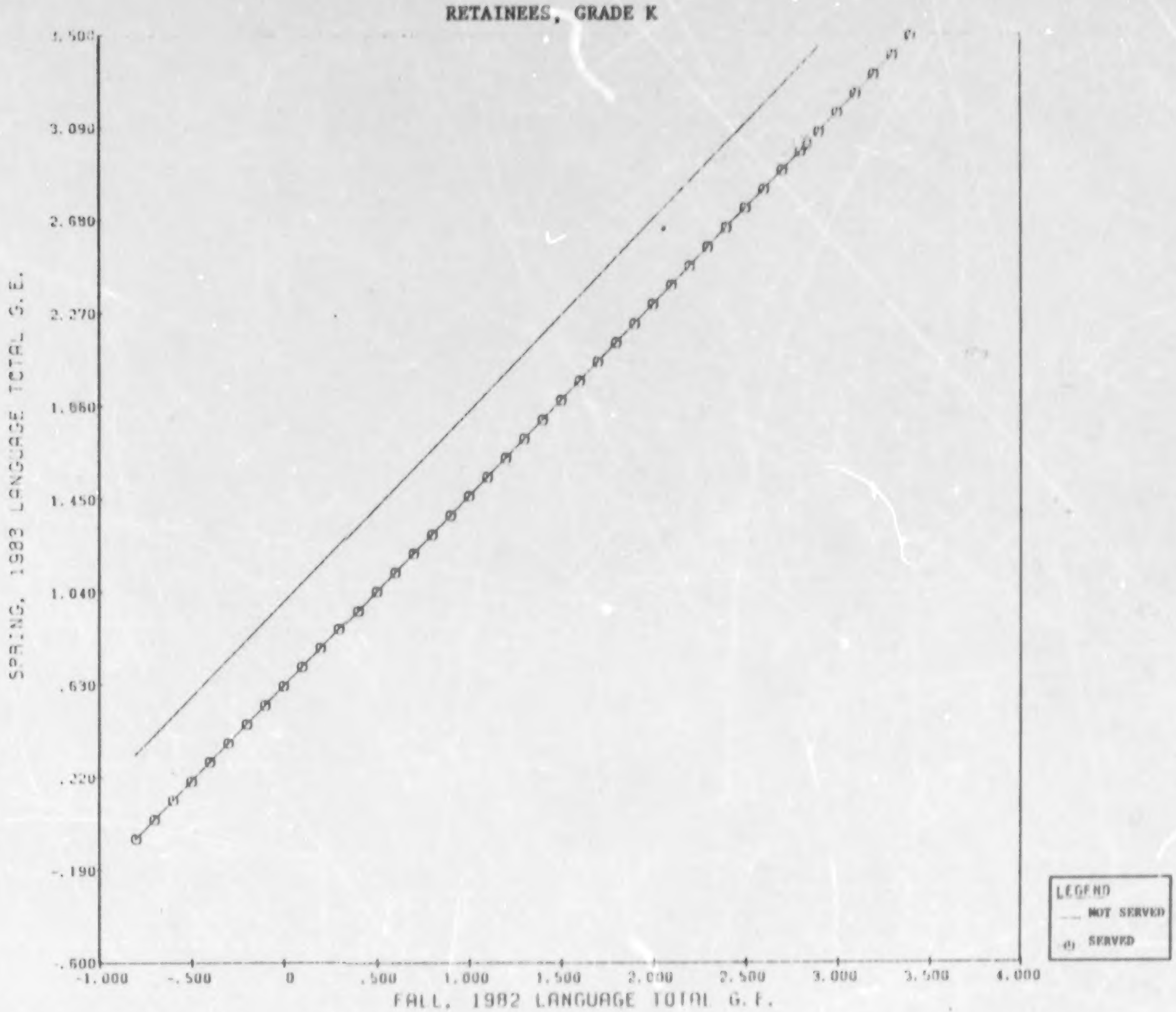


Figure B-9. REGRESSION LINE FOR RETAINEES AT GRADE K WHO WERE SERVED OR NOT SERVED BY CHAPTER 1.

What has happened to the achievement of students who were served by Title I prior to desegregation when they were reassigned to schools without Chapter 1 services?

Students who were served by Title I in 1979-80 were followed to determine their achievement levels three years after desegregation (in the spring of 1983.) Two groups of students were compared on their reading achievement gains:

- 1979-80 Title I students in grades K-3 who remained in a Regular Title I/Chapter 1 school for all of the following three years, and

- 1979-80 Title I students in grades K-3 who were reassigned to non-Title I/Chapter 1 school for all of the following three years.

Attachment B-5 has the results of the F-tests that resulted from the regression analyses, and Figures B-10 through B-12 show the results of the significant comparisons. There was a significant difference between the 1983 reading scores for the two groups of students who were in grades 1, 2, and 3 in 1980-81. No significant difference in 1983 scores was found between the two groups of 1980-81 grade 4 students. All of the significant differences indicated greater gains for students who were reassigned to non-Title I/Chapter 1 schools. Perhaps this is because these non-Title I/Chapter 1 schools have a higher average SES level, which the research literature suggests facilitates achievement gains of all students, even the low-income, low-achiever. In addition, these students may have benefited from the SCE program on their new campuses. In any event, the former Title I students do not appear to have been detrimentally affected by the desegregation plan.

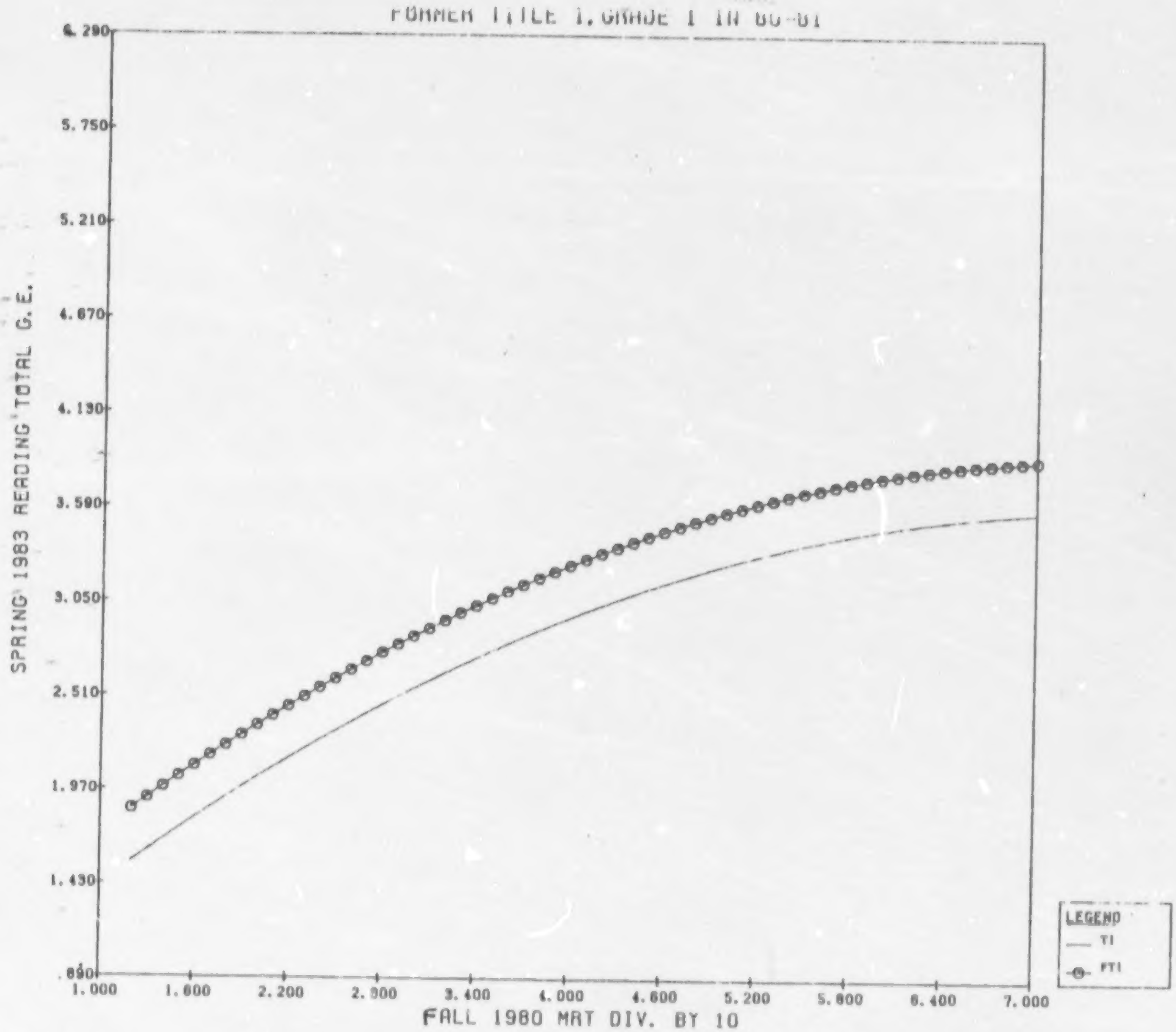


Figure B-10. REGRESSION LINE FOR 1979-80 TITLE I STUDENTS WHO REMAINED IN TITLE I SCHOOLS OR WHO WERE REASSIGNED TO NON-TITLE I SCHOOLS FOR THE SUBSEQUENT THREE YEARS. (GRADE 1)

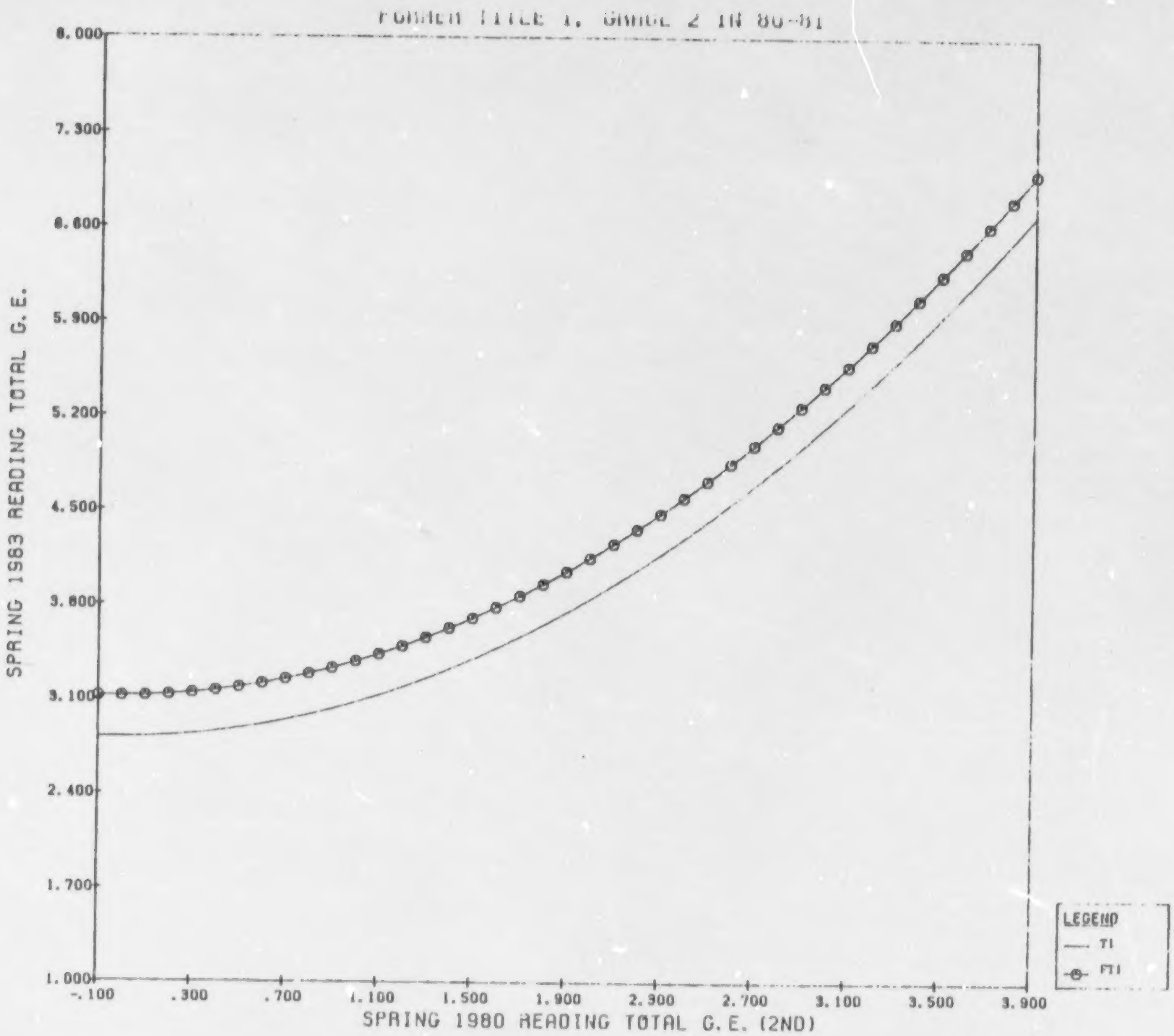


Figure B-11. REGRESSION LINE FOR 1979-80 TITLE I STUDENTS WHO REMAINED IN TITLE I SCHOOLS OR WHO WERE REASSIGNED TO NON-TITLE I SCHOOLS FOR THE SUBSEQUENT THREE YEARS. (GRADE 2)

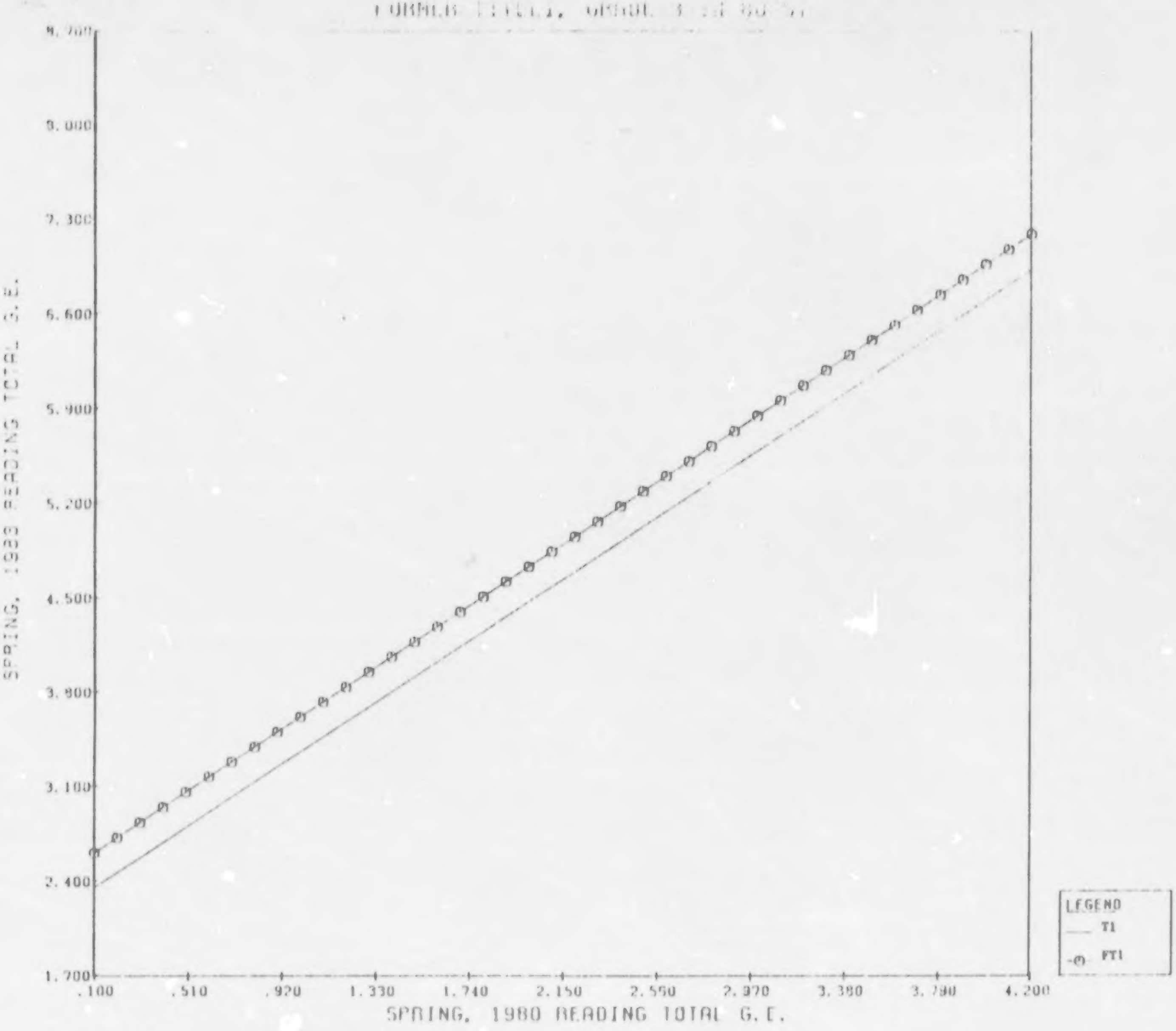


Figure B-12. REGRESSION LINE FOR 1979-80 TITLE I STUDENTS WHO REMAINED IN TITLE I SCHOOLS OR WHO WERE REASSIGNED TO NON-TITLE I SCHOOLS FOR THE SUBSEQUENT THREE YEARS. (GRADE 3)

How did 1982-83 achievement gains of Schoolwide Projects students and students in Regular Chapter 1 schools compare?

Gains of the two groups of students were compared in reading, math, and language across grades K-6 using the regression analyses described earlier. Students in Regular Chapter 1 schools were included if they resided in a traditionally Title I area. (Attachment B-6 has the area codes that were included.) Of the 19 comparisons made--6 grade levels of reading and math, 7 grade levels of language--14 yielded significant group differences, as summarized below. (Attachment B-7 contains F calculations.)

Language

There were significant differences between Schoolwide Project students and Regular Chapter 1 students in language at grades 2, 3, 4, and 6. At grades 2-4, Schoolwide Project students made greater gains than Regular Chapter 1 students with the same pretest scores. At grade 6, Schoolwide Project students gained more if they were no more than one year behind grade level on the pretest. For students more than one year behind grade level on the pretest, Regular Chapter 1 students gained more. Figures B-13 through B-16 illustrate these results.

Math

Although the Regular Chapter 1 program is a reading program, the scheduling of supplemental reading instruction can affect instruction in other areas for Chapter 1 students, and for other students in their classes. In addition, the smaller class size in Schoolwide Projects schools should enhance math scores, as well as reading and language. Thus, math scores for the students in the two types of programs seemed important to compare. Significant differences in achivement gains were found between the two groups at grades 1-4 and 6. All the differences favored Schoolwide Projects students, as shown in Figures B-22 through B-26.

Reading

Significant group differences in reading gains were found for grades 1-3 and 5-6. At grade 2, there was a clear advantage for Schoolwide Projects students, regardless of the pretest score. However, at grades 1, 3, and 5-6, the advantage for Schoolwide Project students is more noticeable at higher pretest levels. At grades 3, 5, 6, Schoolwide Project students with very low pretest scores gained less than students in Regular Chapter 1 schools. Nevertheless, Schoolwide Project students on the average gained more in reading than Regular Chapter 1 students with the same pretest scores. Figure B-17 through B-21 illustrate these results.

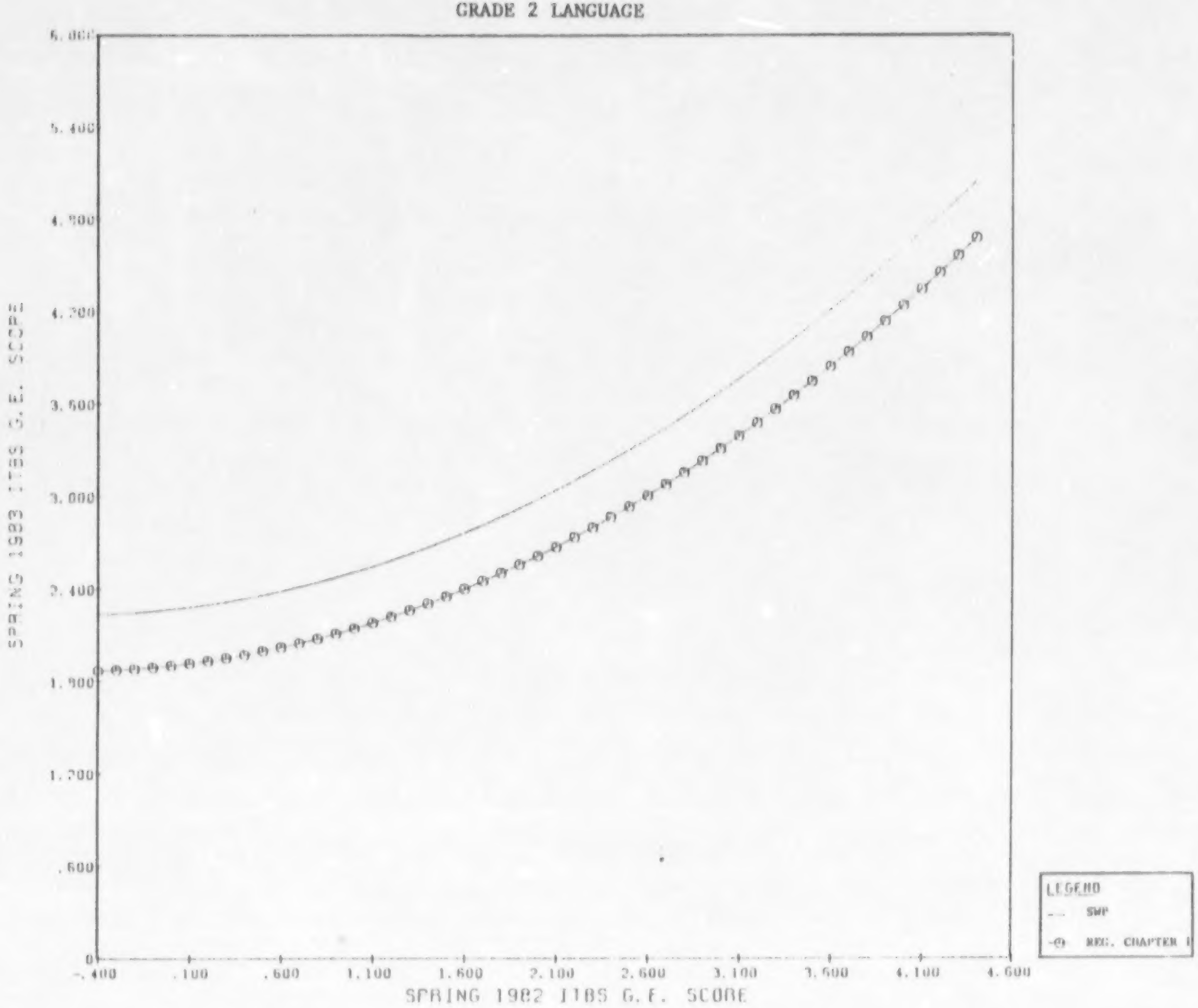


Figure B-13. REGRESSION LINES FOR LANGUAGE SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 2.

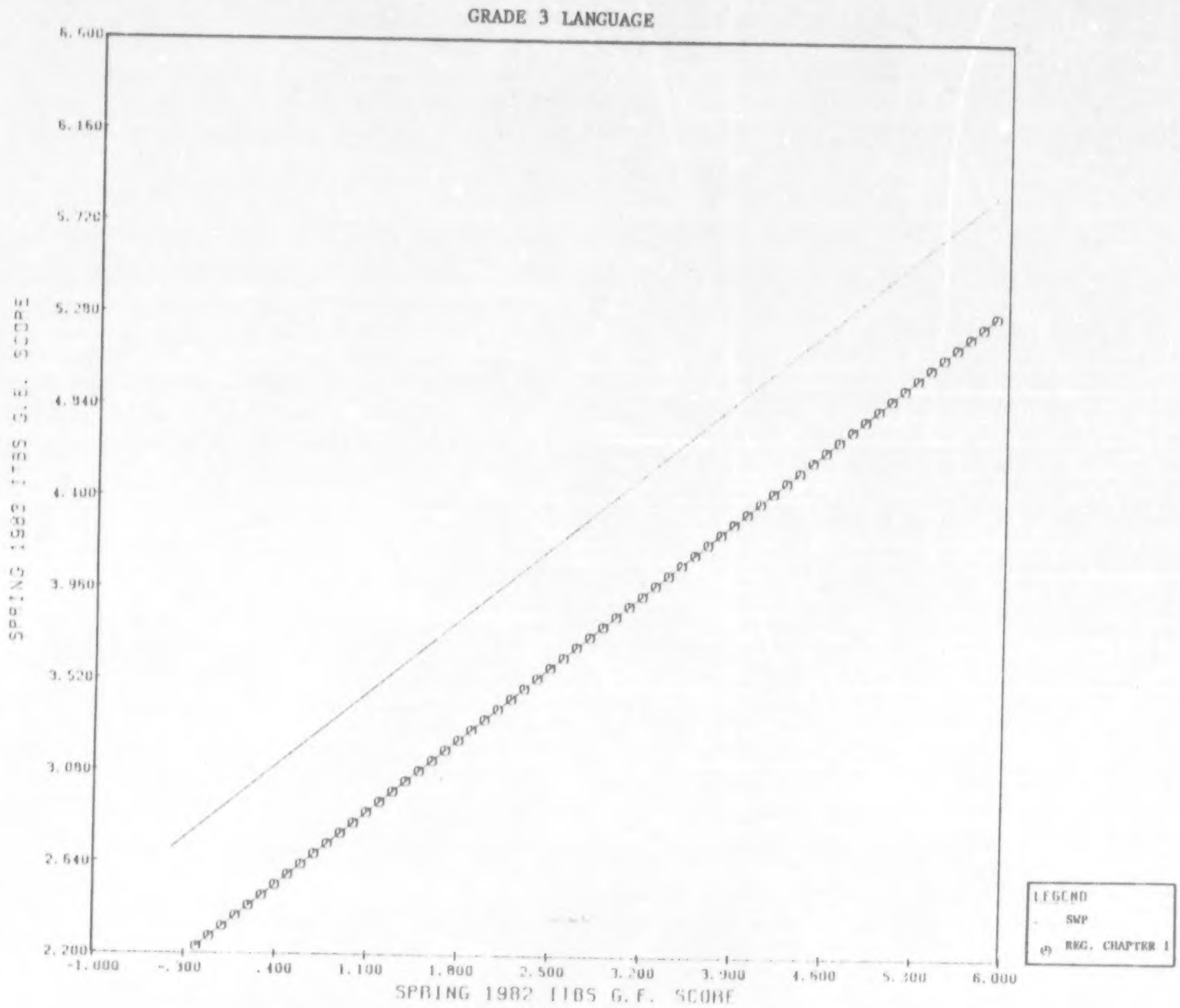


Figure B-14. REGRESSION LINES FOR LANGUAGE SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER I STUDENTS, GRADE 3.

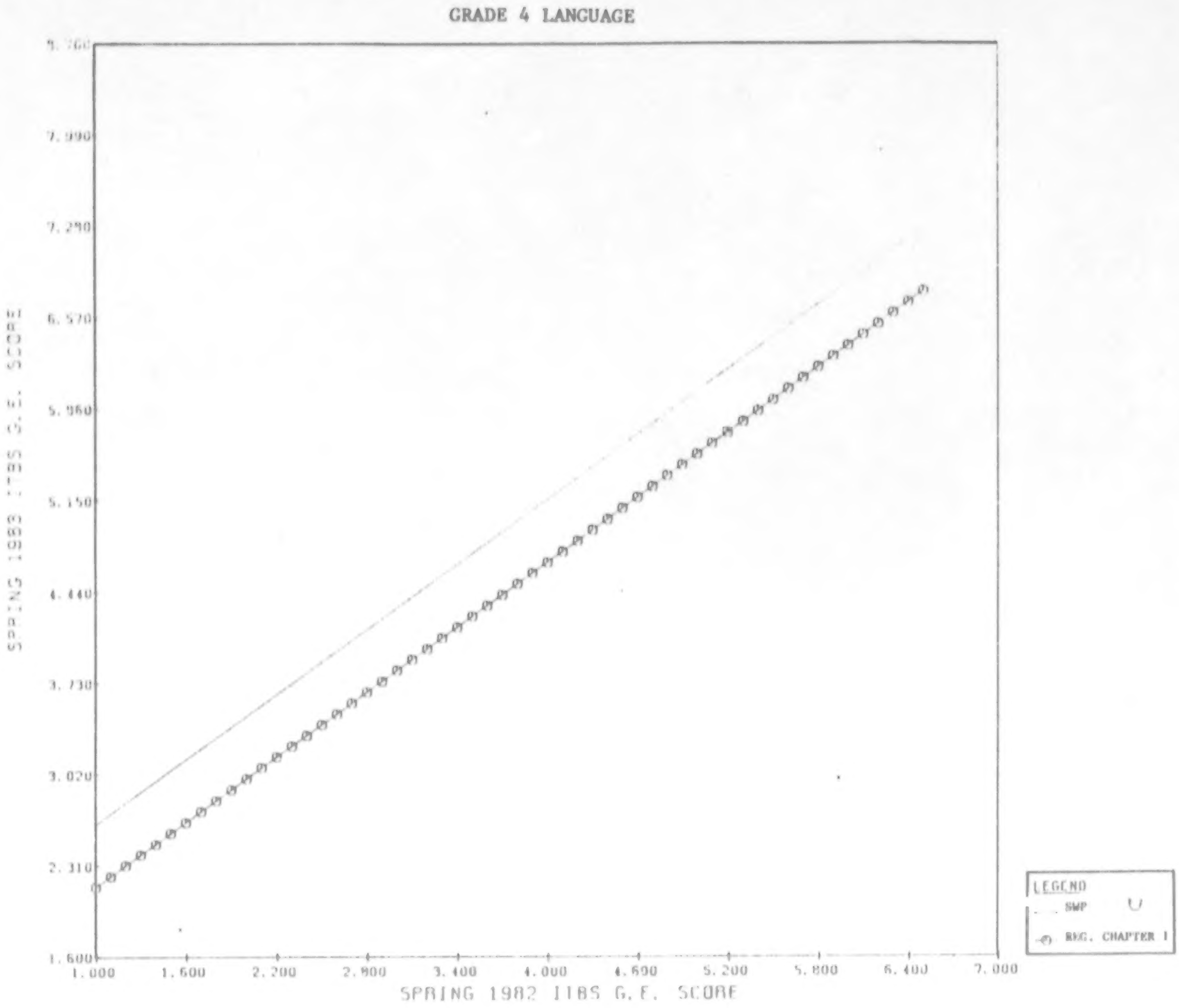


Figure B-15. REGRESSION LINES FOR LANGUAGE SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 4.

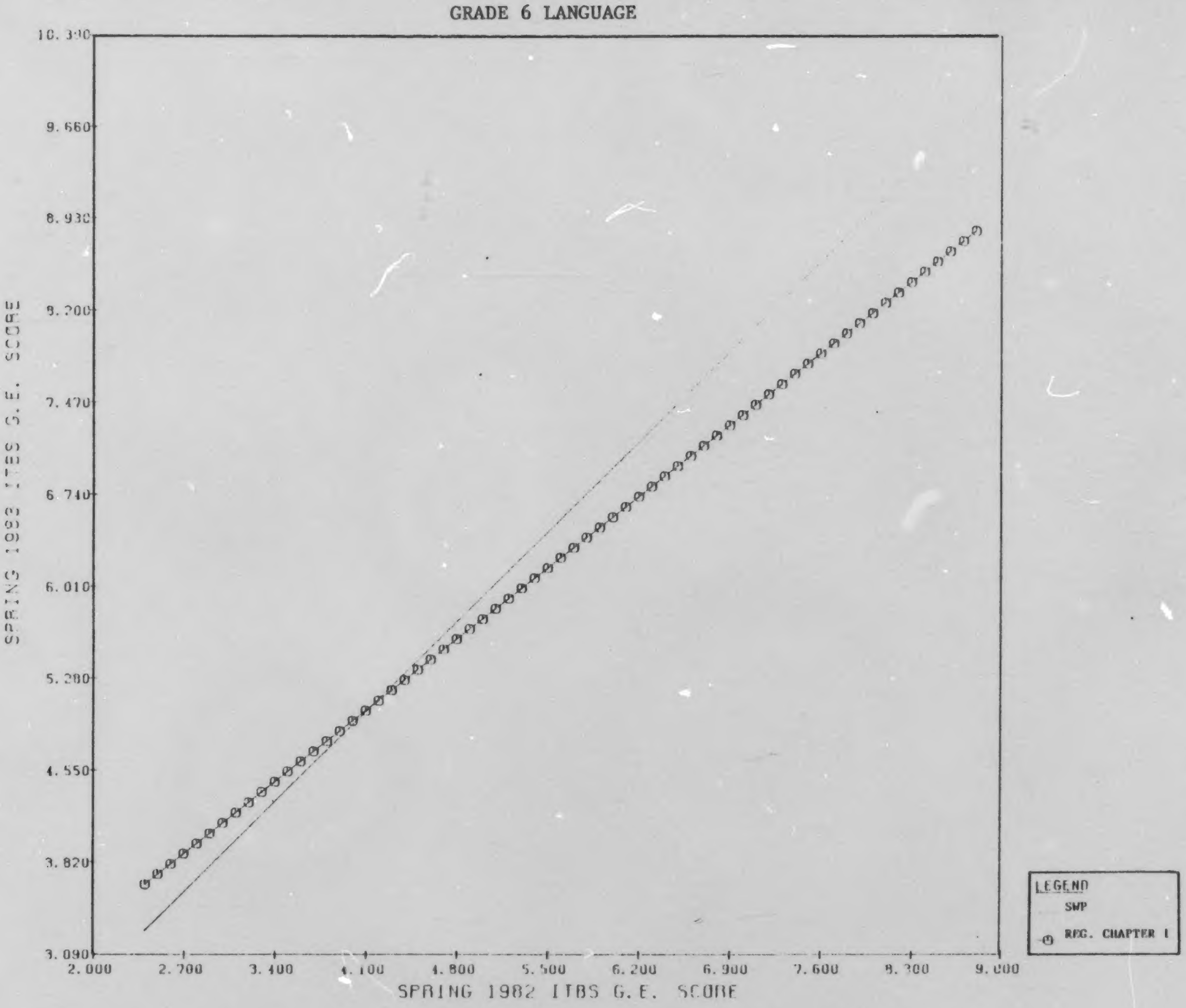


Figure B-16. REGRESSION LINES FOR LANGUAGE SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 6.

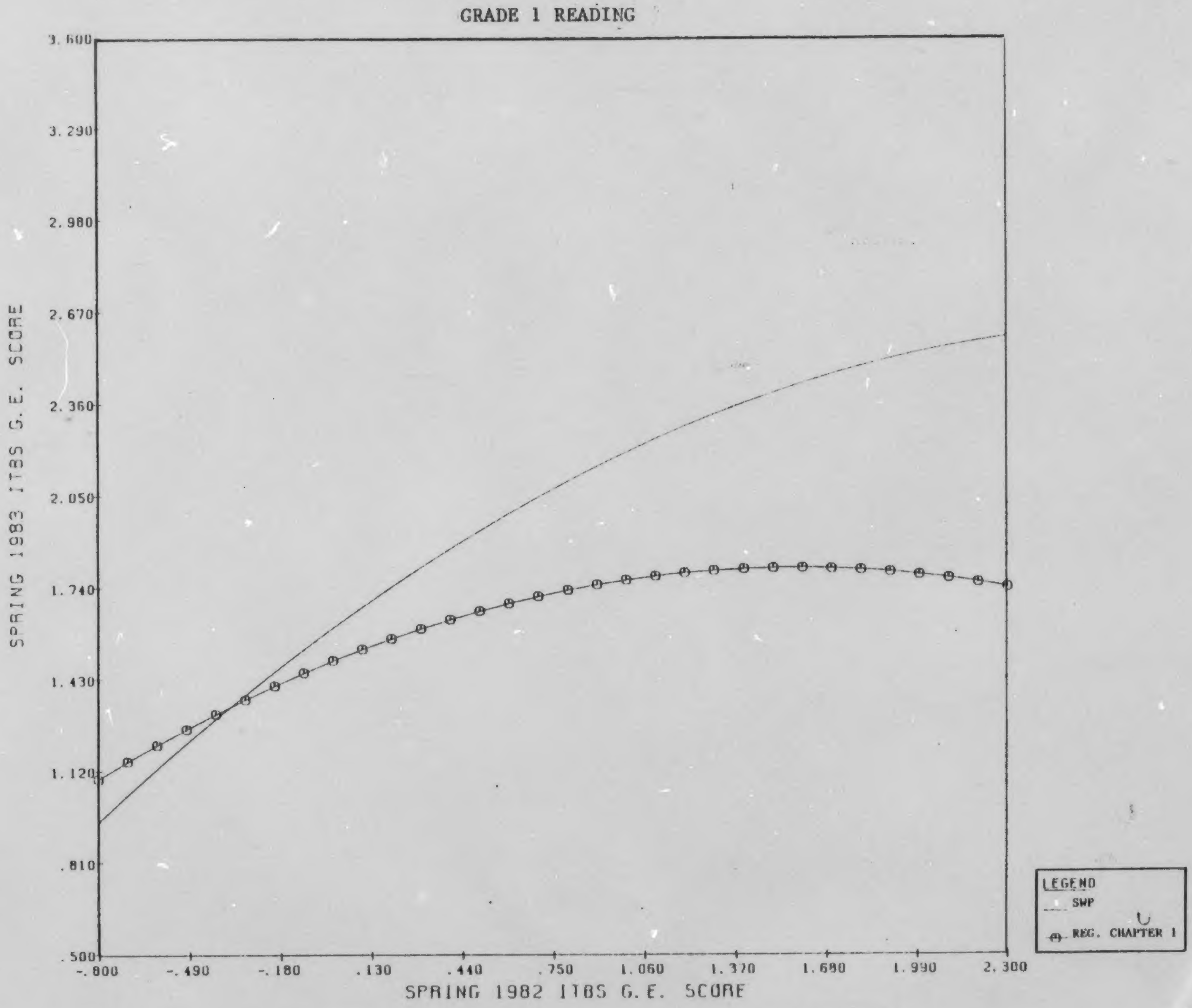


Figure B-17. REGRESSION LINES FOR READING SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 1.

GRADE 2 READING

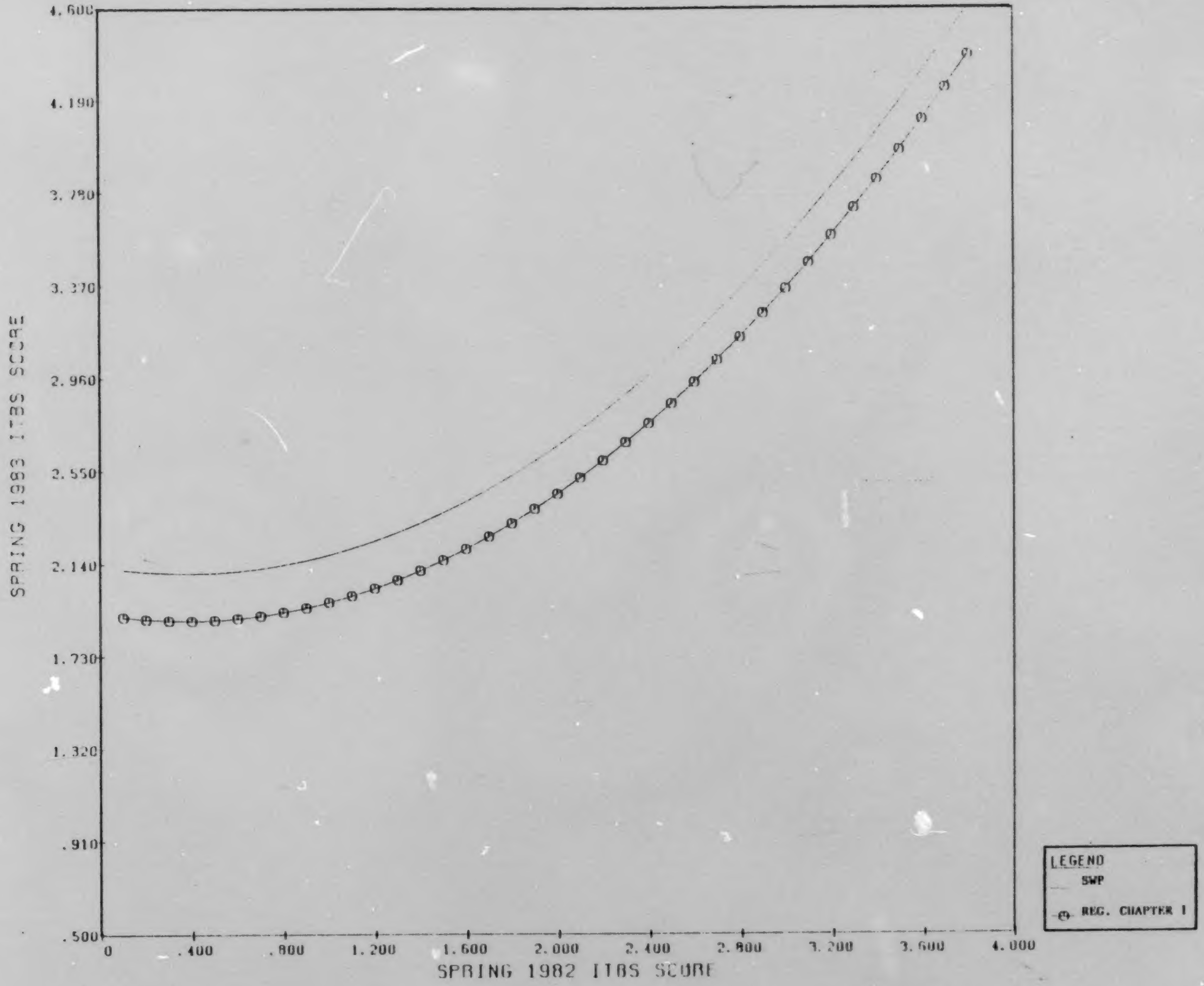


Figure B-18. REGRESSION LINES FOR READING SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 2.

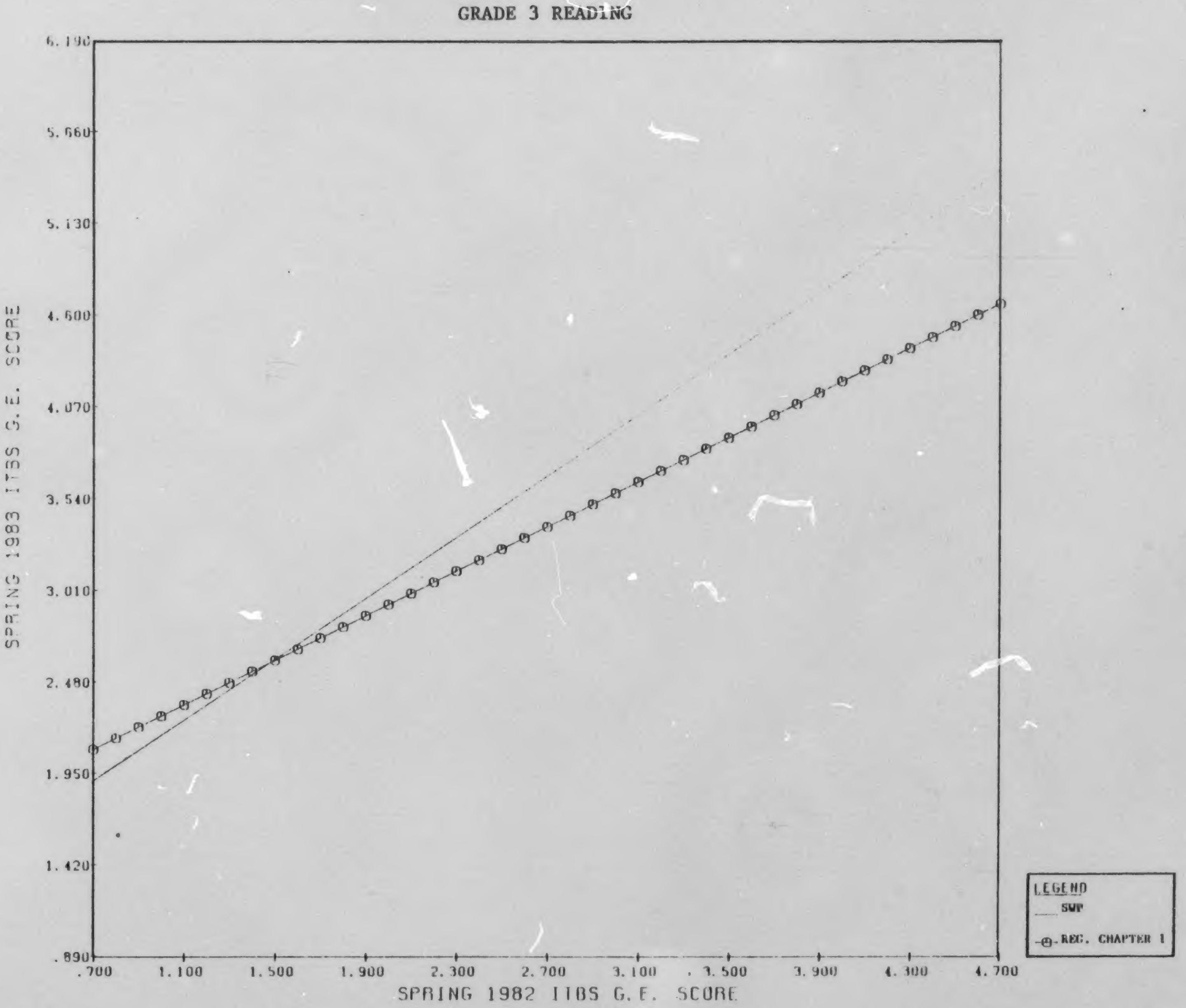


Figure B-19. REGRESSION LINES FOR READING SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 3.

82.37

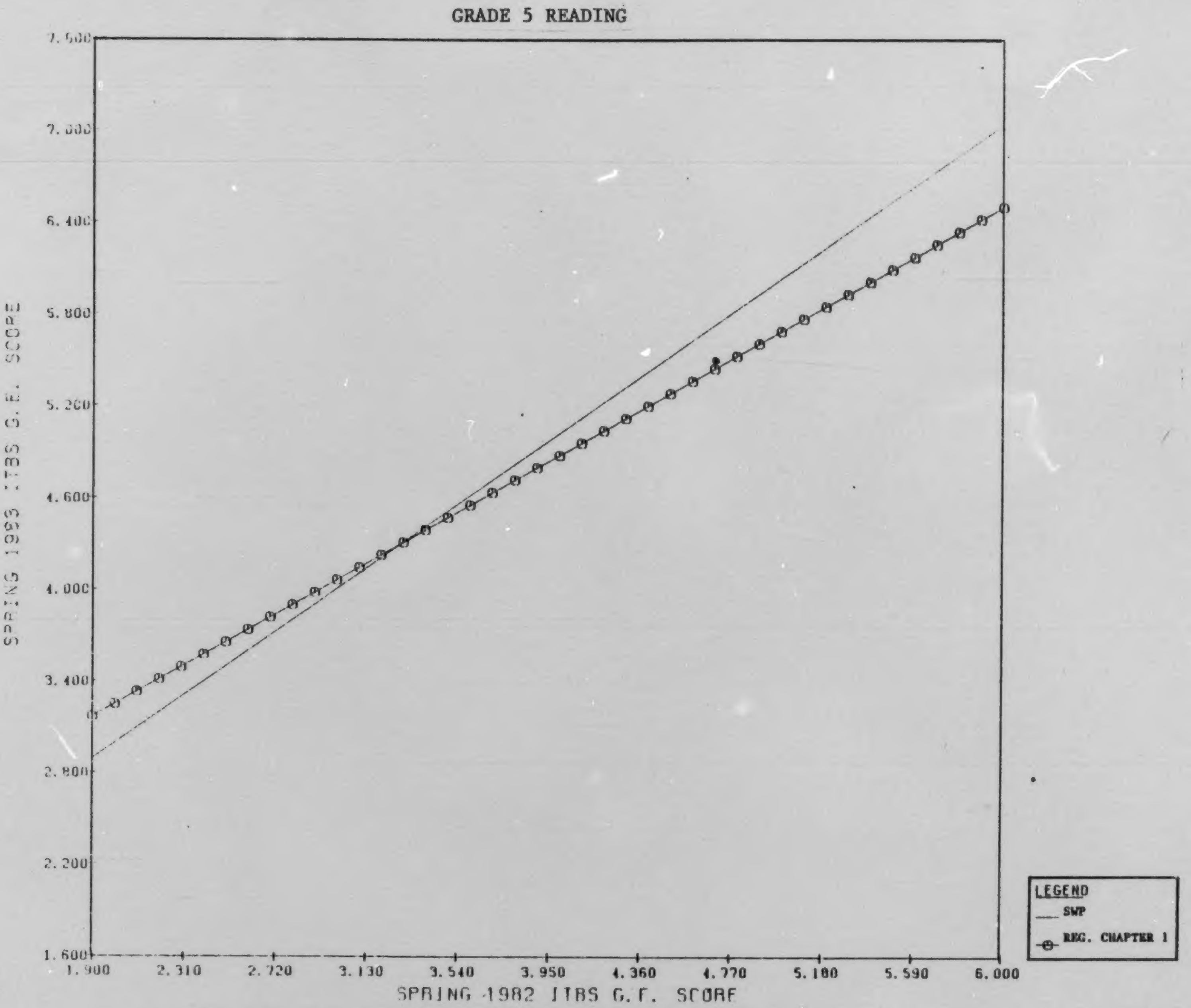


Figure B-20. REGRESSION LINES FOR READING SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 5.

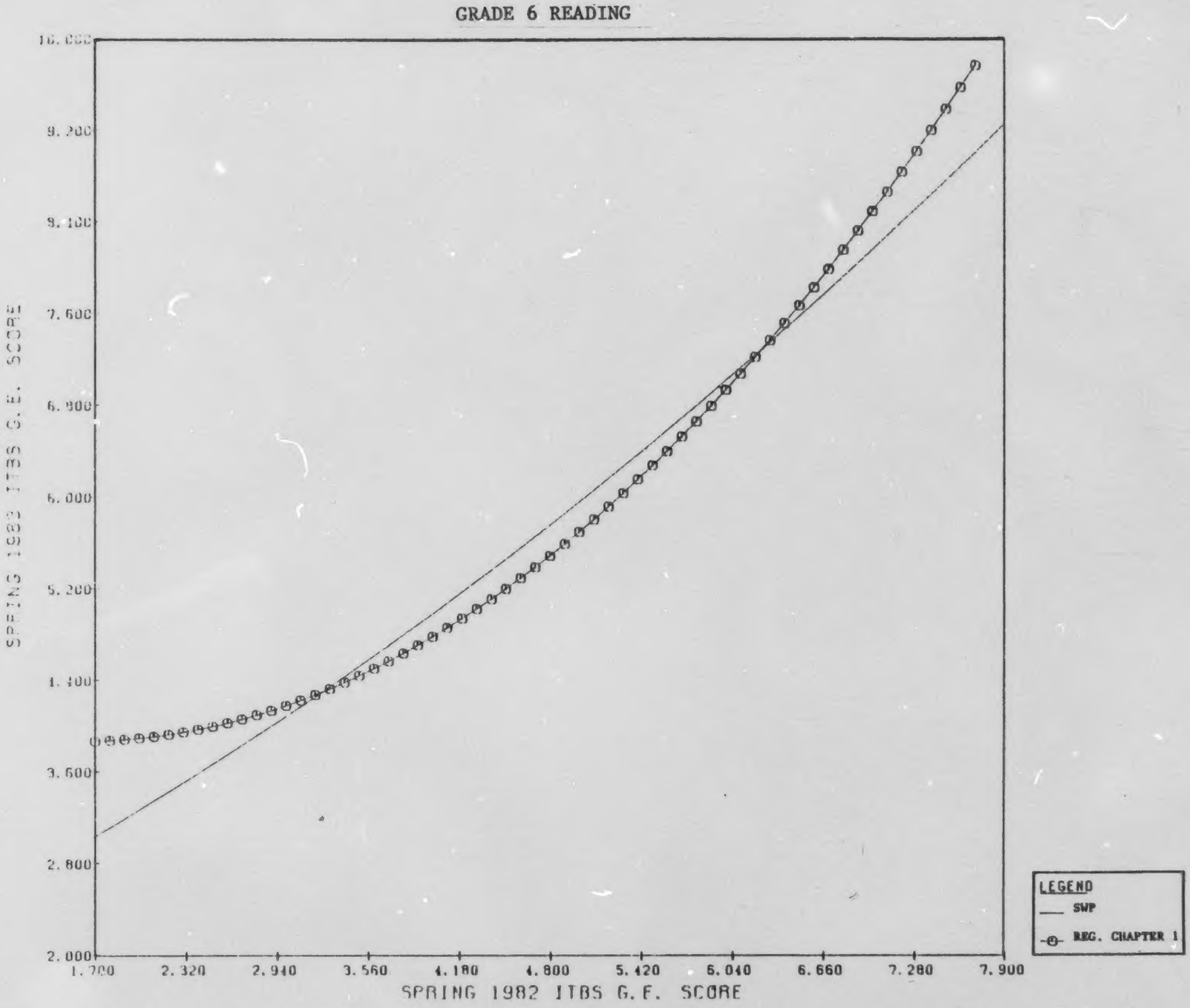


Figure B-21. REGRESSION LINES FOR READING SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 6.

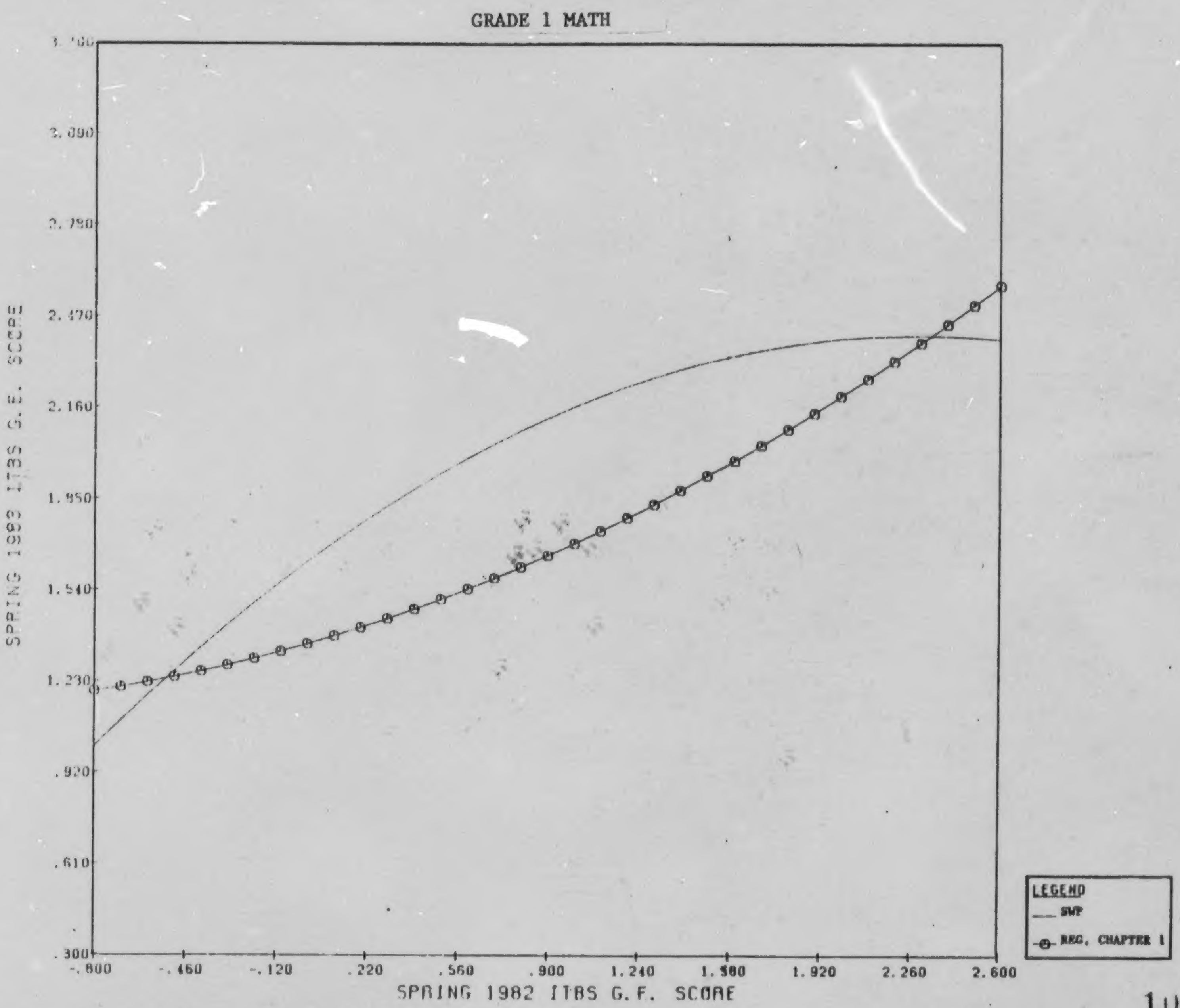


Figure B-22. REGRESSION LINES FOR MATH SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 1.

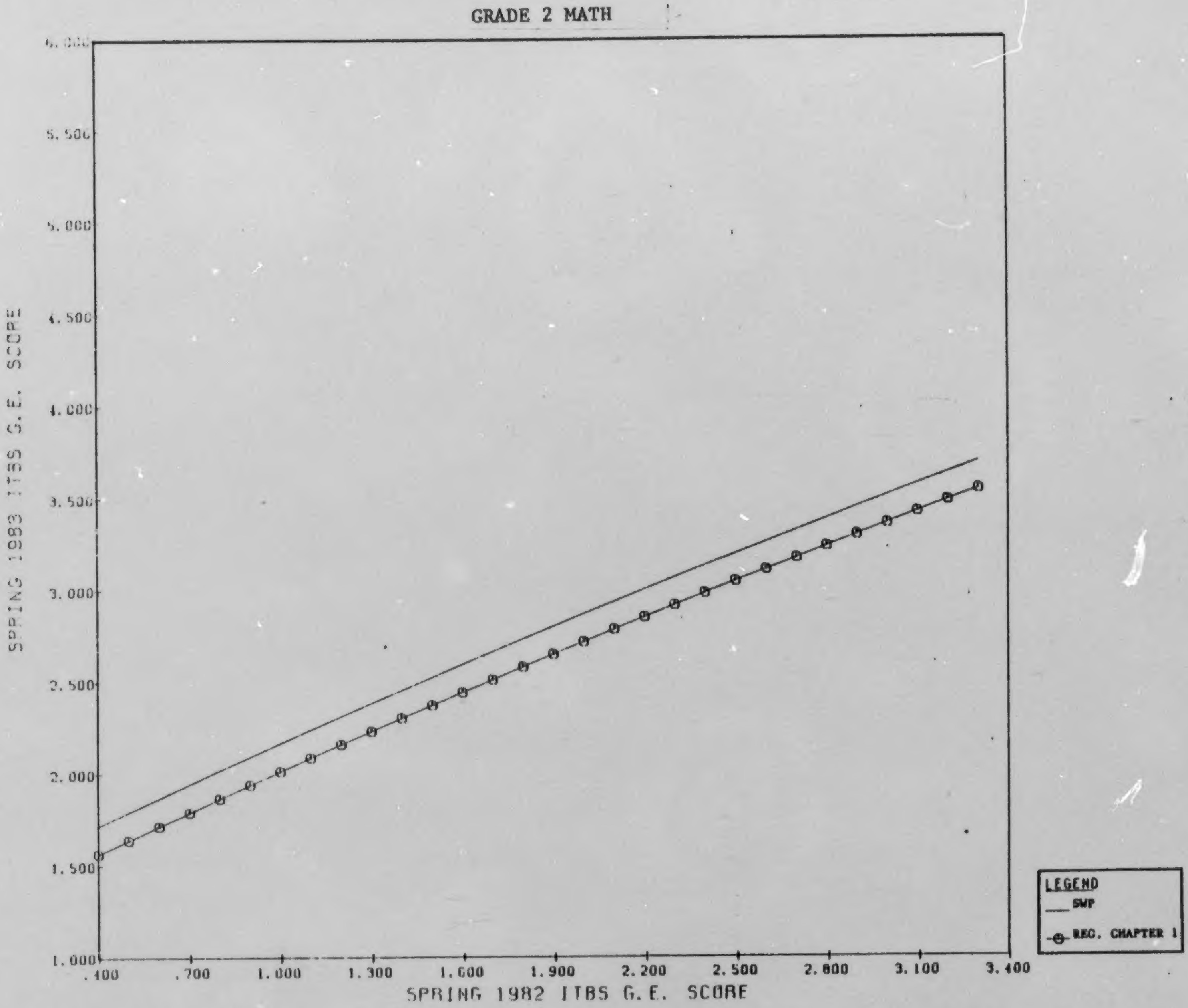


Figure B-23. REGRESSION LINES FOR MATH SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 2.

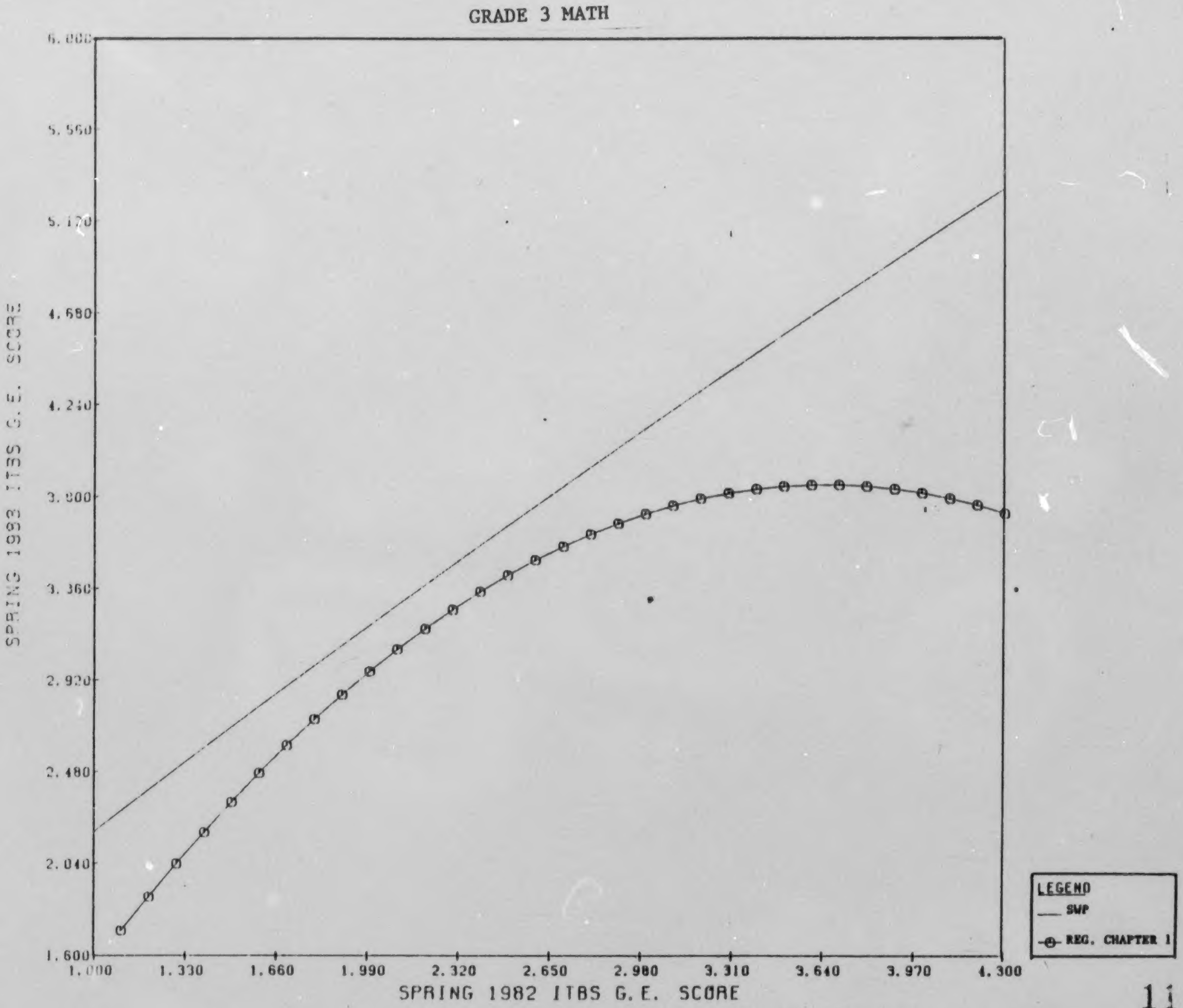


Figure B-24. REGRESSION LINES FOR MATH SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 3.

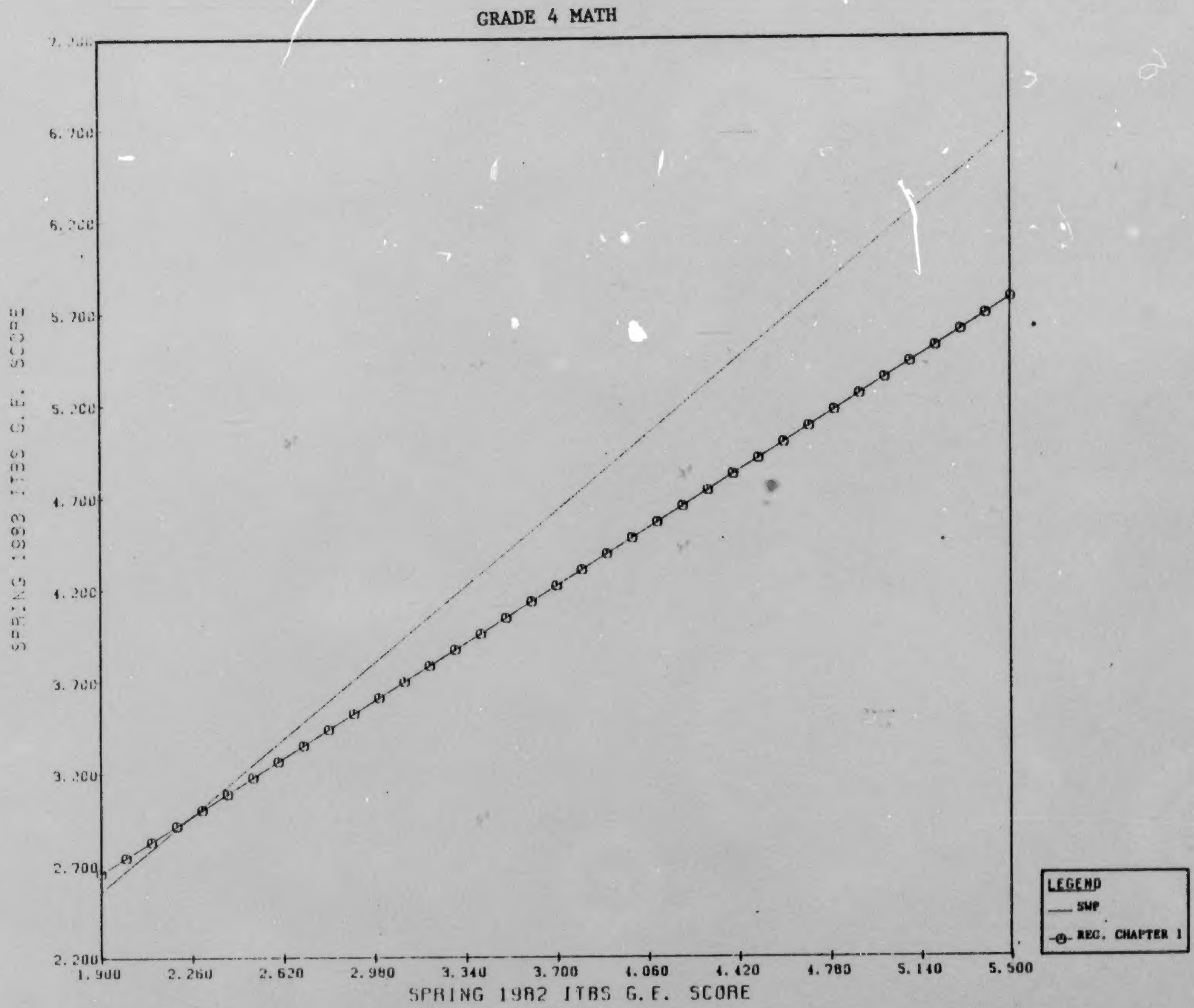


Figure B-25. REGRESSION LINES FOR MATH SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 4.

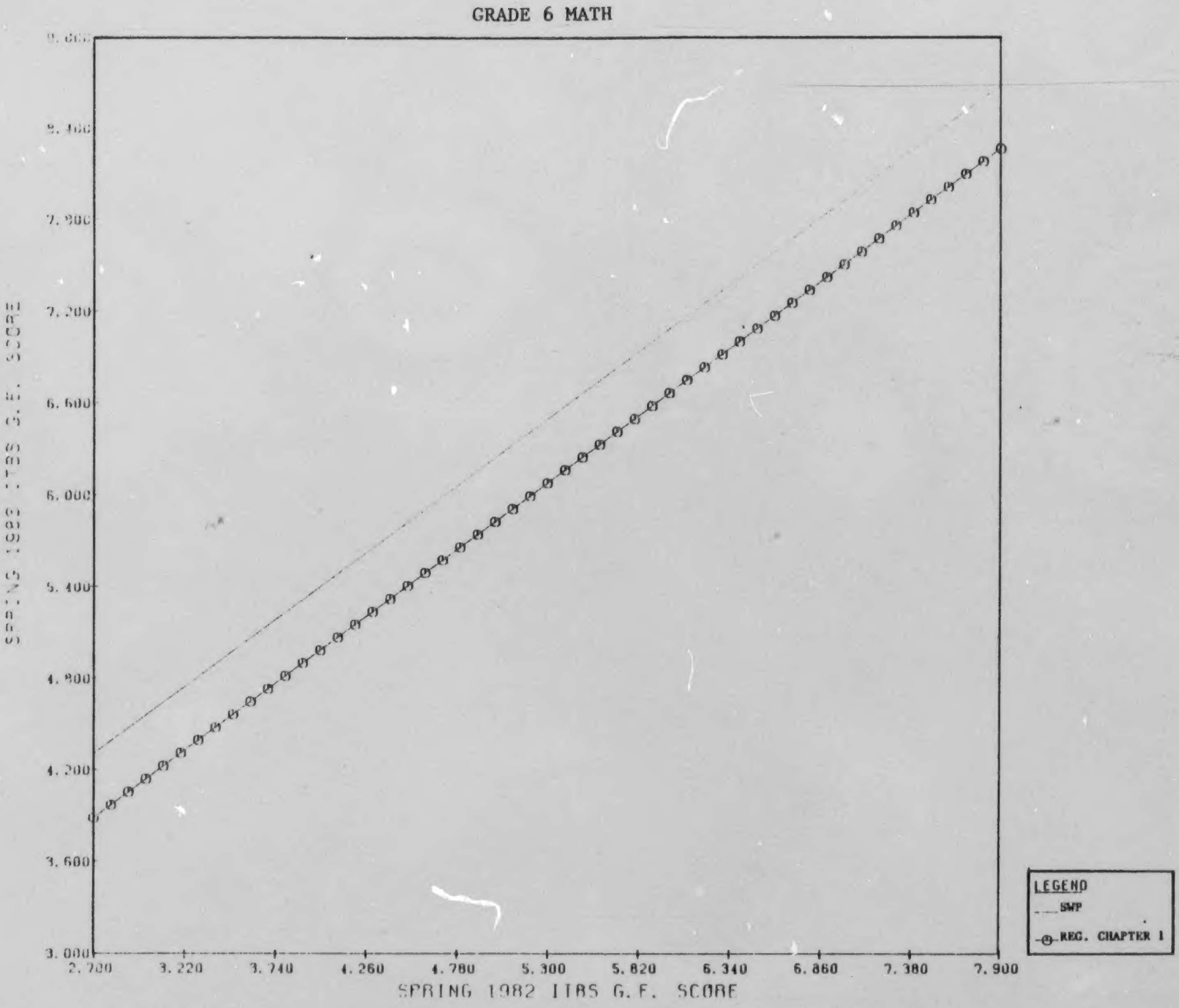


Figure B-26. REGRESSION LINES FOR MATH SCORES OF SCHOOLWIDE PROJECT AND REGULAR CHAPTER 1 STUDENTS, GRADE 6.

How do the achievement gains of students in Schoolwide Projects for all three years compare with the gains of students in Regular Title I schools for all three years?

A matched sample was obtained of Schoolwide Projects and Regular Title I students in grades K and 1 during 1980-81 (the first year of Schoolwide Projects.) The sample included all Schoolwide Projects students who were in Schoolwide Projects all three years, and for whom a match could be found. The students in Regular Title I schools were selected if they were from a traditional Title I area and matched on ethnicity, low-income status, grade, sex, pretest score (within 1 raw score point), age (within 4 months), and retainee status. Thus, the final N's for the analyses were small, ranging from 77 to 102 per analysis. (A few students were omitted on the posttest because of missing subtests, but their "match" was not omitted under those circumstances.)

Comparisons of 1983 ITBS reading, language, and math ITBS scores for the two cohorts (grades K and 1 in 1980-81) revealed only one significant difference--Schoolwide Projects students in first grade in 1980-81 gained significantly more in language across the three years than did comparable students in Regular Title I schools. However, other results that were nonsignificant also favored Schoolwide Projects students--the lack of statistical significance being due at least in part to the somewhat small N's used for the regression analyses. All of the nonsignificant results favored Schoolwide Projects students, although the group differences in math for the grades 1-3 cohort were small, with MRT scores as the pretest. A more relevant pretest measure might have shown any program effects for math more reliably. Figures B-27 through B-31 illustrate the other results, and Attachment B-8 contains the F statistics.

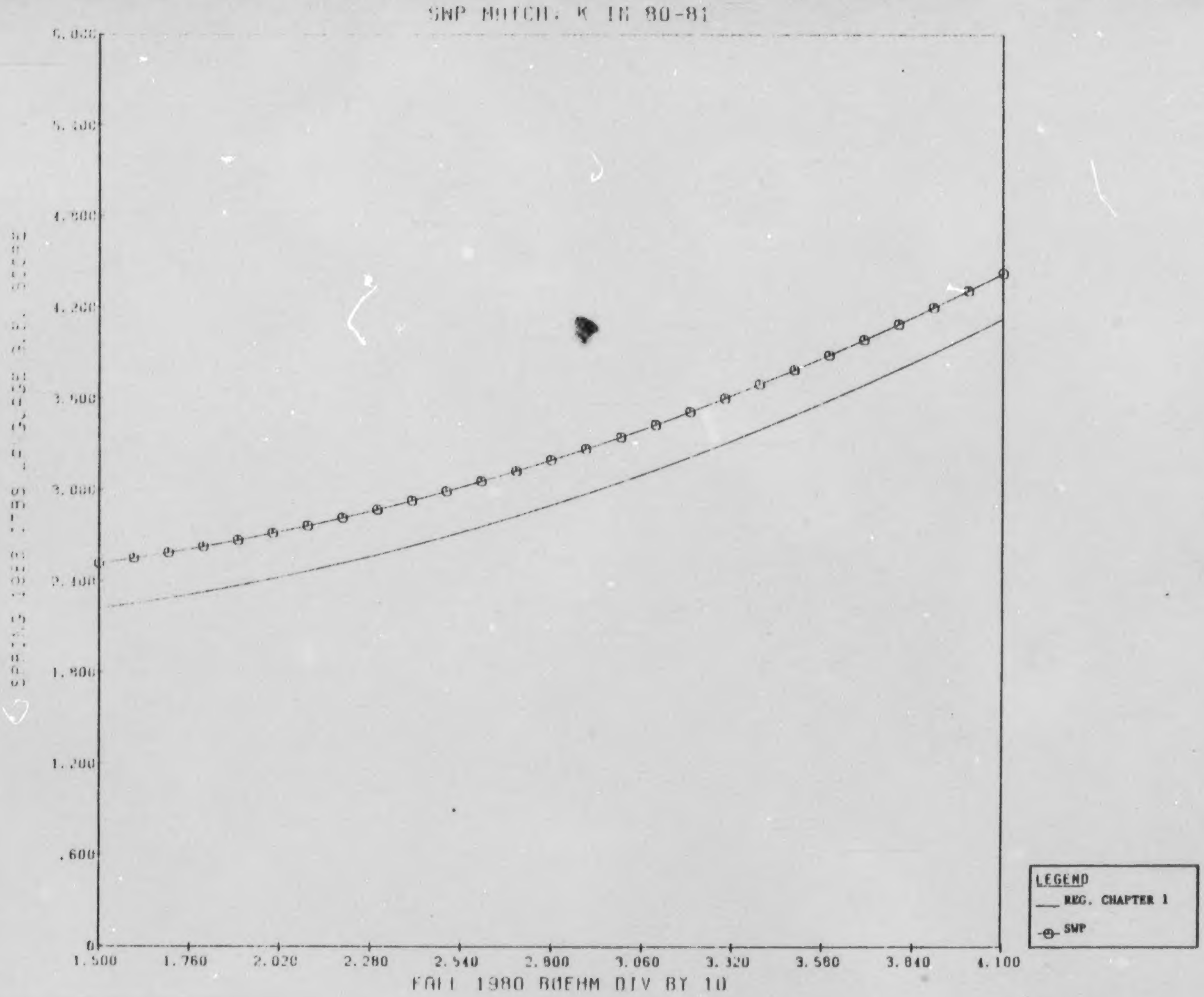


Figure B-27. REGRESSION LINES FOR LANGUAGE SCORES OF STUDENTS IN SCHOOLWIDE PROJECTS AND REGULAR CHAPTER 1 SCHOOLS CONSISTENTLY ACROSS THREE YEARS: 1980-81, 1981-82, AND 1982-83 (K-2ND).

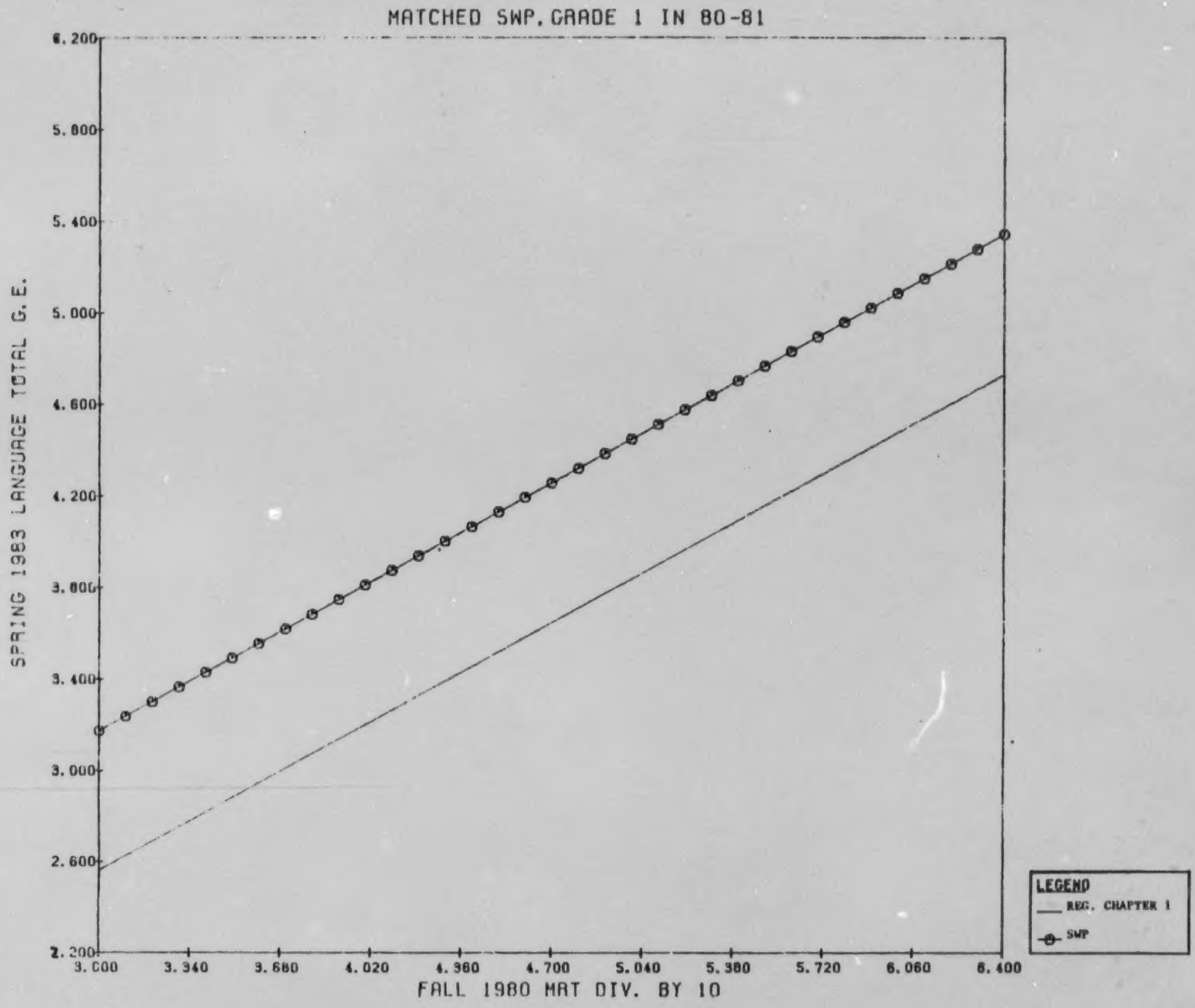


Figure B-28. REGRESSION LINES FOR LANGUAGE SCORES OF STUDENTS IN SCHOOLWIDE PROJECTS AND REGULAR CHAPTER 1 SCHOOLS CONSISTENTLY ACROSS THREE YEARS: 1980-81, 1981-82, AND 1982-83 (1ST-3RD).

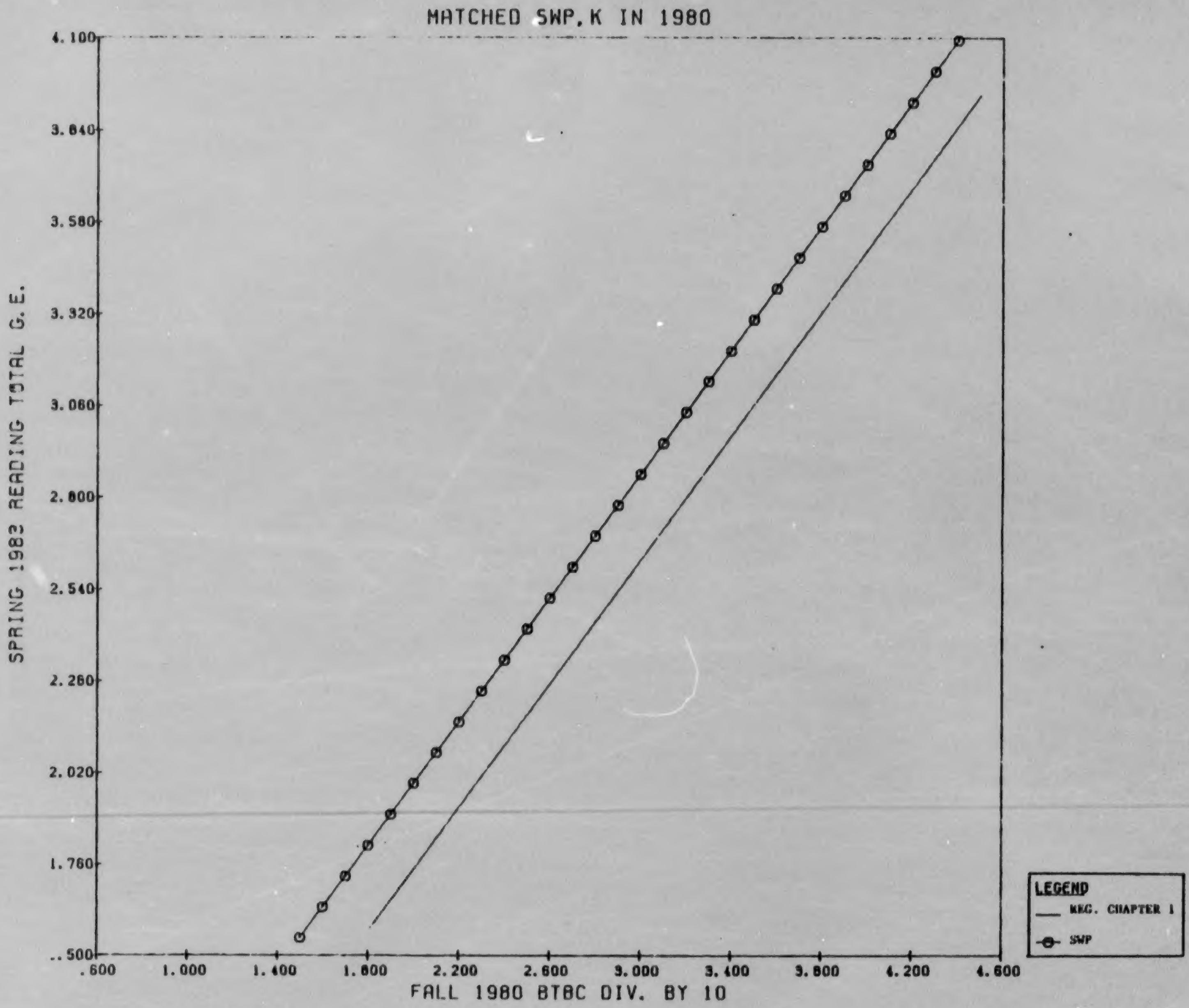


Figure B-29. REGRESSION LINES FOR READING SCORES OF STUDENTS IN SCHOOLWIDE PROJECTS AND REGULAR CHAPTER 1 SCHOOLS CONSISTENTLY ACROSS THREE YEARS: 1980-81, 1981-82, AND 1982-83 (K-2ND).

82.37

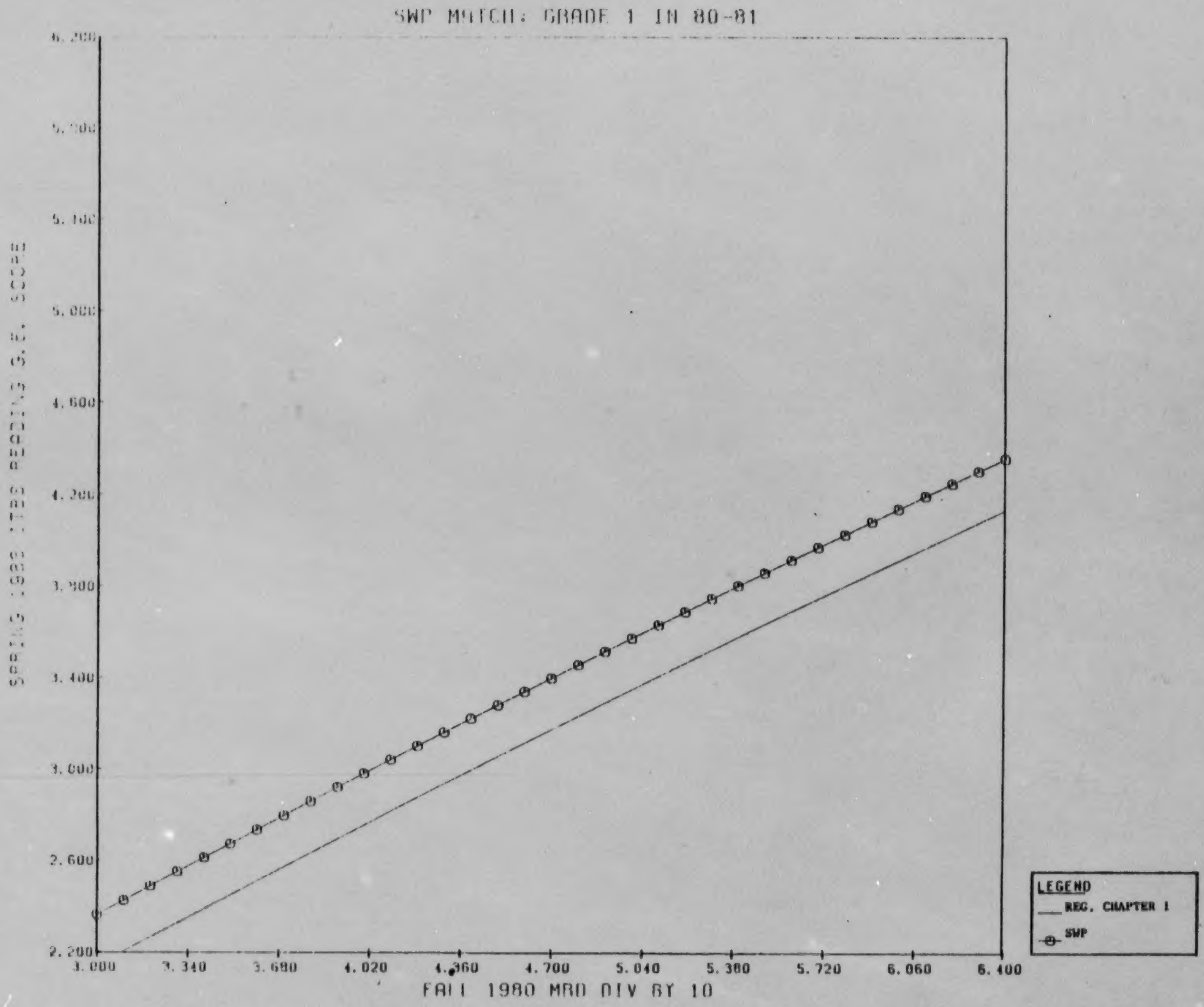


Figure B-30. REGRESSION LINES FOR READING SCORES OF STUDENTS IN SCHOOLWIDE PROJECTS AND REGULAR CHAPTER 1 SCHOOLS CONSISTENTLY ACROSS THREE YEARS: 1980-81, 1981-82, AND 1982-83 (1ST-3RD).

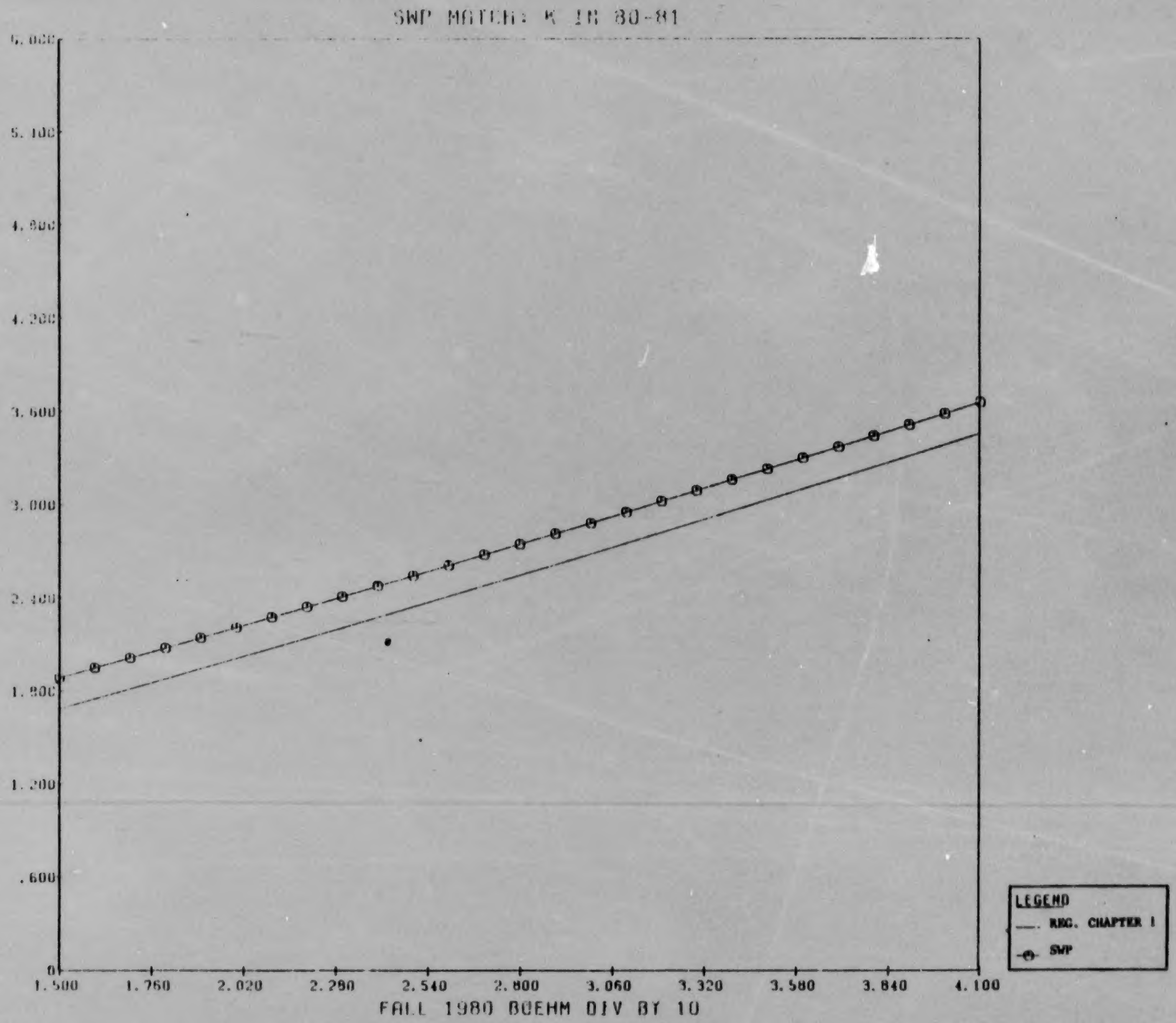


Figure B-31. REGRESSION LINES FOR MATH SCORES OF STUDENTS IN SCHOOLWIDE PROJECTS AND REGULAR CHAPTER 1 SCHOOLS CONSISTENTLY ACROSS THREE YEARS: 1980-81, 1981-82, AND 1982-83 (K-2ND).

How do gains of Chapter 1 students compare with gains of comparable students served by other programs?

A comparison was made of the 1983 Reading Total achievement scores of three groups of students:

- students from traditional Title I areas who were served by the SCE reading program.
- students from traditional Title I areas who were served by the Regular Chapter 1 Program.
- students who were served by the Migrant Program.

The pretest at grades 1-6 was the 1982 ITBS Reading Total grade equivalent, except for first grade where the Language Total score was used. For kindergarten where the Language Total score was used for both pre- and posttest. At kindergarten, only Chapter 1 and Migrant students were compared, because the SCE Program does not serve kindergarten.

The results of the regression model comparisons indicated no significant differences between the groups at grades K-2, or 4. Figures B-32 through B-34 show the results of the statistically significant comparisons at grades 3, 5, and 6, and Attachment B-9 gives the F's for the Model comparisons.

Figures B-35 and B-36 are figures that were used in various other Chapter 1 reports and presentations. They are included here for documentation purposes. Figure B-35 shows the mean gains of Regular Chapter 1 and Migrant Program students. These are unadjusted means--they do not control for pretest differences between the two groups. Figure B-36 (requested as a handout for a meeting) shows the average advantage for Schoolwide Project students (using Model 3) when compared with Regular Chapter 1 Program students. It ignores any possible interaction of pretest and group membership.

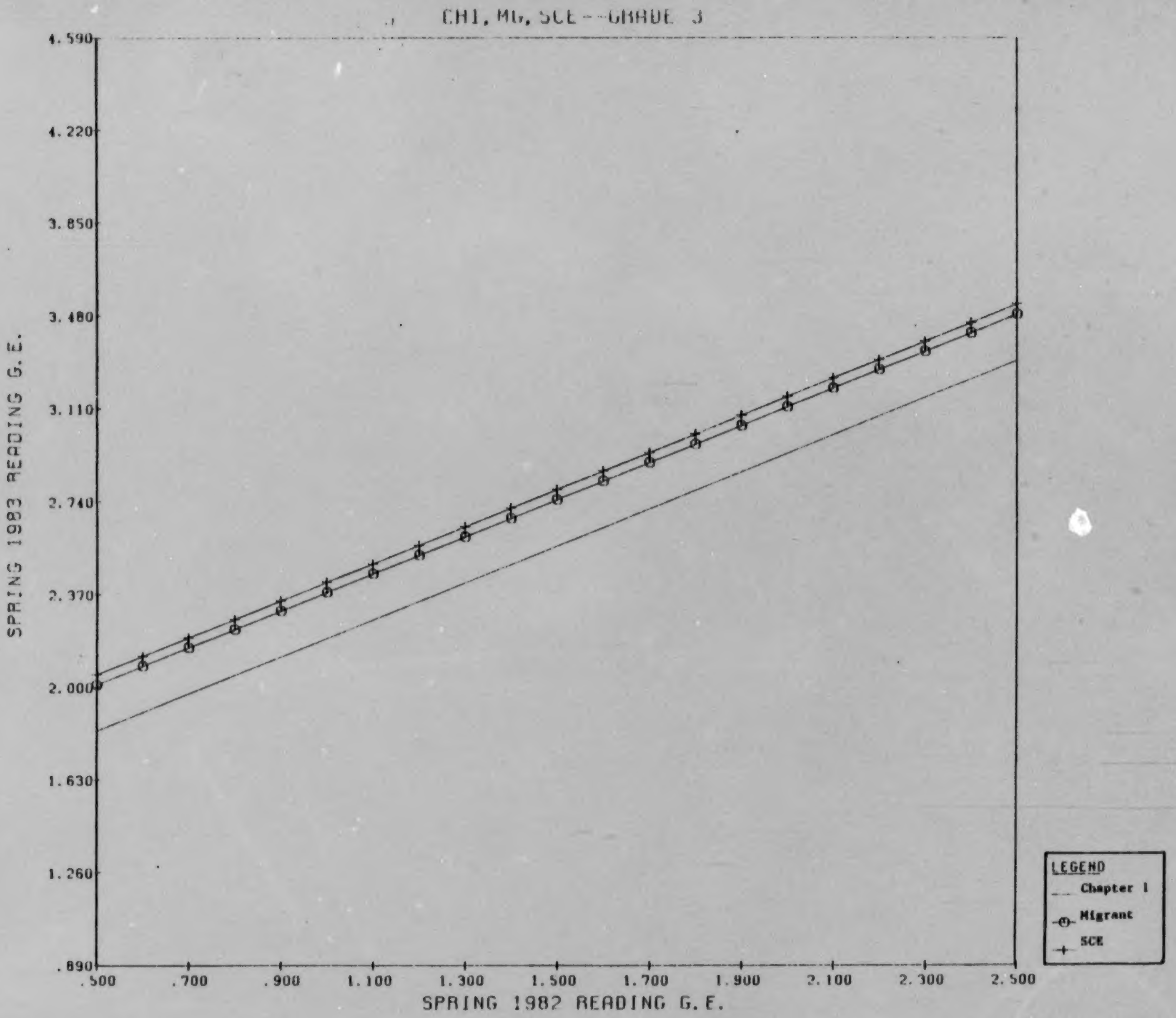


Figure B-32. REGRESSION LINE FOR READING SCORES OF CHAPTER 1, MIGRANT, AND SCE PROGRM STUDENTS. (GRADE 3)

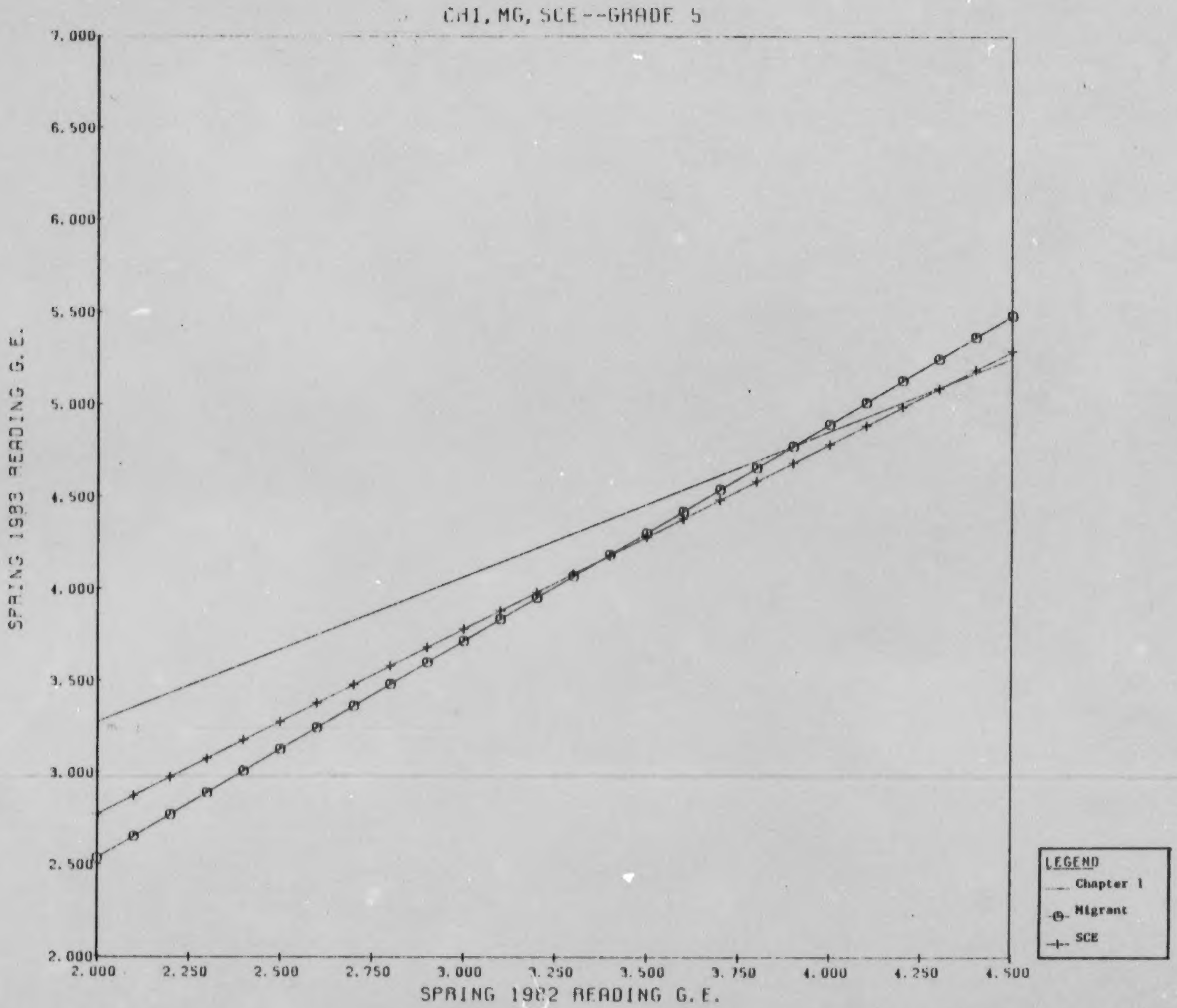


Figure B-33. REGRESSION LINE FOR READING SCORES OF CHAPTER 1, MIGRANT, AND SCE PROGRAM STUDENTS. (GRADE 5)

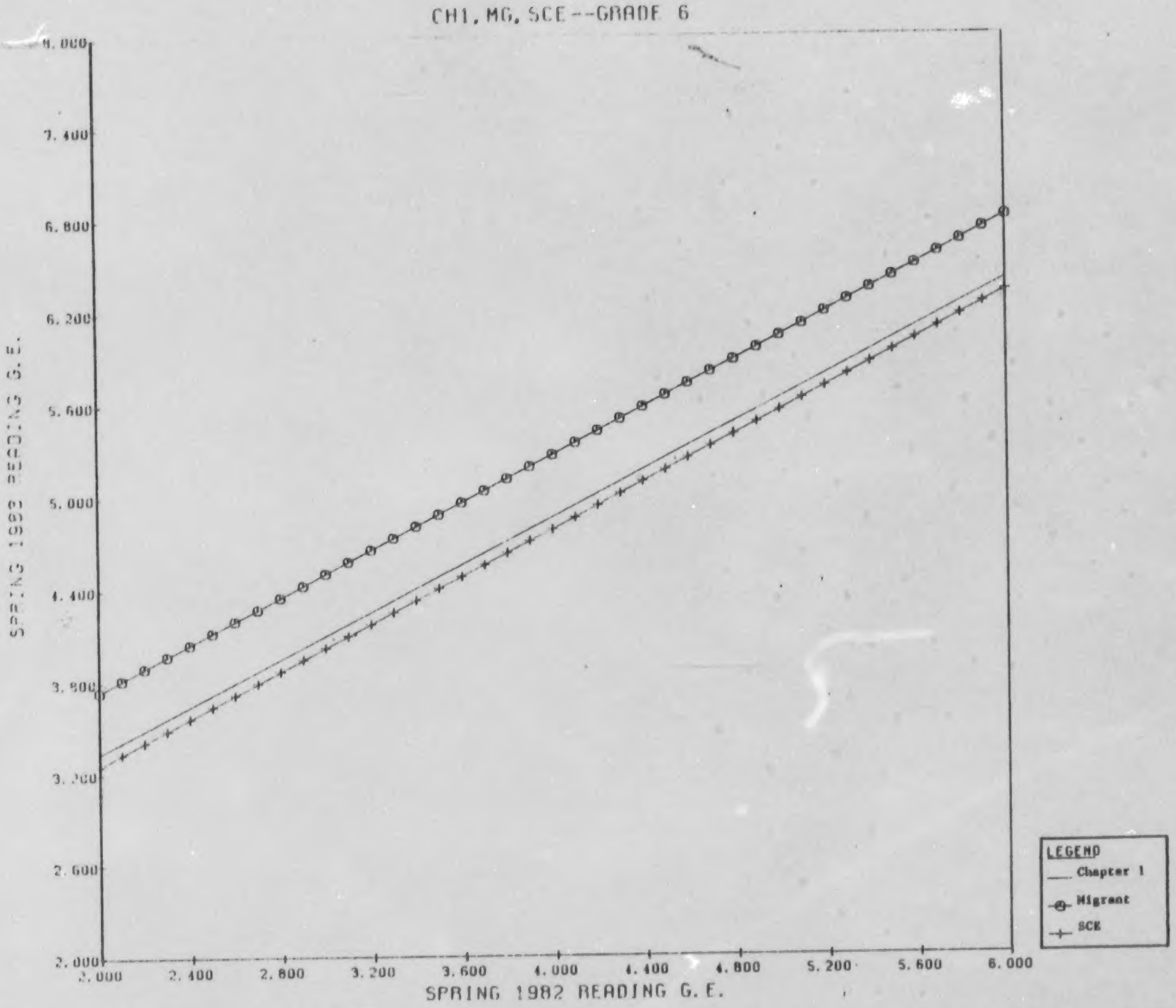


Figure B-34. REGRESSION LINE FOR READING SCORES OF CHAPTER 1, MIGRANT, AND SCE PROGRAM STUDENTS. (GRADE 6)

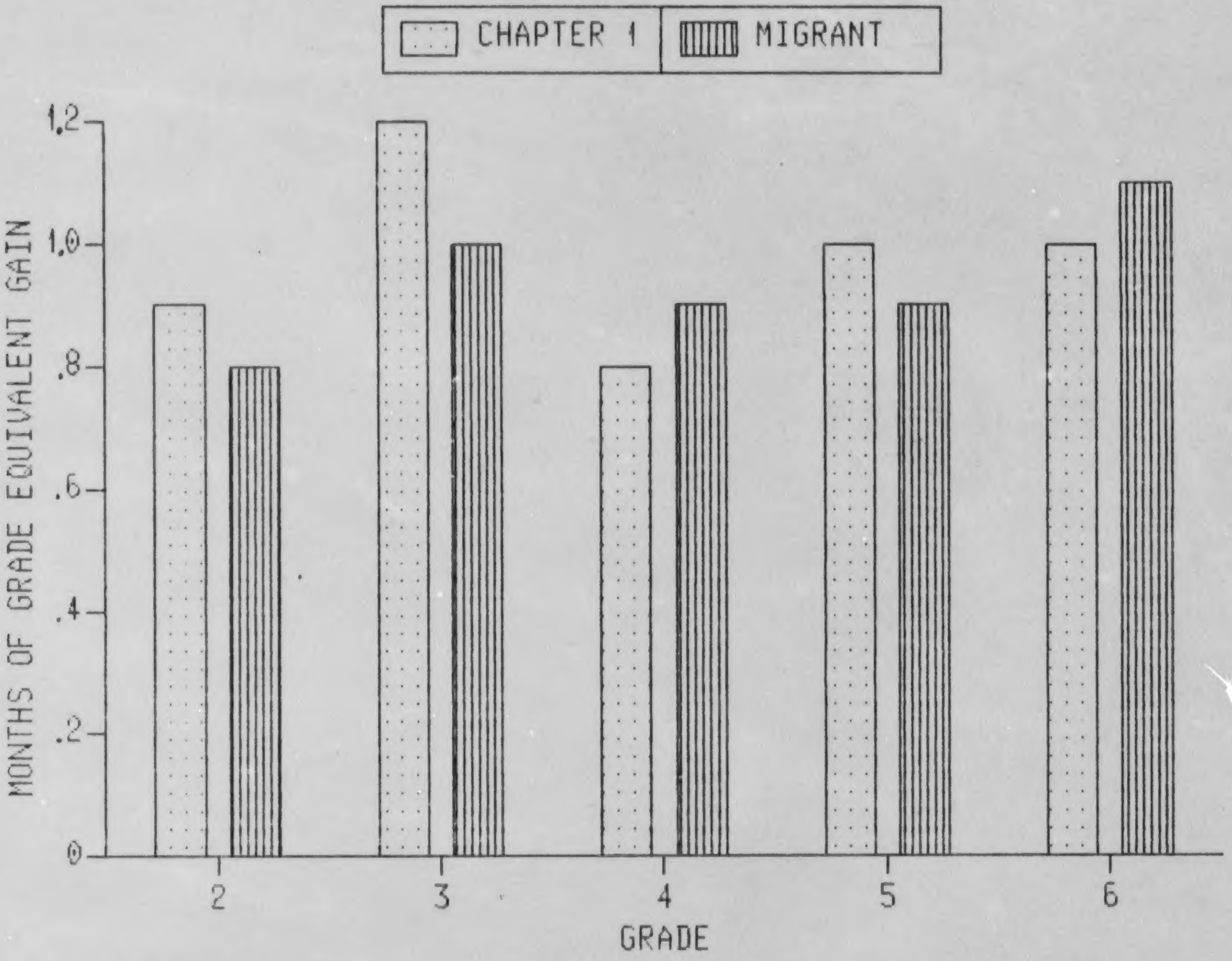


Figure B-35. MEAN GRADE EQUIVALENT GAINS-STUDENTS SERVED BY CHAPTER 1 AND MIGRANT.

One-Year Comparisons

Grade	Reading	Math	Language
K	N/A	N/A	-.14
1	▨ +.25	▨ +.32	+.02
2	▨ +.21	▨ +.15	▨ +.37
3	▨ +.13	▨ +.34	▨ +.58
4	+.09	▨ +.32	▨ +.44
5	▨ +.02*	+.01	+.04
6	▨ +.16	▨ +.40	▨ +.87
	(Average = +.14)	(Average = +.26)	(Average = +.31)

*This is significant because the advantage for high achievers was much larger than this.

Three-Year Matched Sample Comparisons
(1980-81 through 1982-83)

Grade*	Reading	Math	Language
K (2)	+.24	+.20	+.30
1 (3)	+.23	+.07	▨ +.61
	(Average = +.24)	(Average = +.14)	(Average = +.46)

*This refers to the grade in 1980-81, with 1982-83 expected grade in parentheses.

▨ Indicates statistically significant advantage.

Figure B-36. ACHIEVEMENT ADVANTAGE FOR SCHOOLWIDE PROJECT STUDENTS (IN MONTHS).

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
10 OR MORE POINTS	1	72	43.6 (34)	43.6	43.6
7 TO 9 POINTS	2	4	2.4 (04)	2.4	46.1
4 TO 6 POINTS	3	3	1.8 (10)	1.8	47.9
1 TO 3 POINTS	4	8	4.8 (17)	4.8	52.7
1 POINT OR FEWER	5	78	47.3 (34)	47.3	100.0
	TOTAL	165	100.0	100.0	

VALID CASES 165 MISSING CASES 0

GRADE K, REGULAR CHAPTER 1

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
1.9 OR ABOVE	1	156	32.9 (17)	32.9	32.9
1.7 OR 1.8	2	51	10.8 (07)	10.8	43.7
1.4 TO 1.6	3	65	13.7 (16)	13.7	57.4
1.1 TO 1.3	4	89	18.8 (22)	18.8	76.2
1.0 OR BELOW	5	113	23.8 (36)	23.8	100.0
	TOTAL	474	100.0	100.0	

VALID CASES 474 MISSING CASES 0

GRADE 1, REGULAR CHAPTER 1

```
                                             RELATIVE     ADJUSTED        CUM
                                ABSOLUTE       FREQ         FREQ         FREQ
CATEGORY LABEL           CODE     FREQ         (PCT)        (PCT)        (PCT)

10 OR MORE POINTS           1       87      39.5 (37)     39.5          39.5

7 TO 9 POINTS               2       13       5.9 (02)      5.9          45.5

4 TO 6 POINTS               3       12       5.5 (04)      5.5          50.9

1 TO 3 POINTS               4       16       7.3 (07)      7.3          58.2

1 POINT OR FEWER            5       92      41.8 (50)     41.8         100.0
                                 -------    -------      -------
                         TOTAL     220      100.0        100.0

VALID CASES     220       MISSING CASES      0
```

GRADE 2, REGULAR CHAPTER 1

```
                                             RELATIVE     ADJUSTED        CUM
                                ABSOLUTE       FREQ         FREQ         FREQ
CATEGORY.LABEL           CODE     FREQ         (PCT)        (PCT)        (PCT)

10 OR MORE POINTS           1      127      50.6 (41)     50.6          50.6

7 TO 9 POINTS               2       20       8.0 (09)      8.0          58.6

4 TO 6 POINTS               3       13       5.2 (11)      5.2          63.7

1 TO 3 POINTS               4       24       9.6 (09)      9.6          73.3

1 POINT OR FEWER            5       67      26.7 (29)     26.7         100.0
                                 -------    -------      -------
                         TOTAL     251      100.0        100.0

VALID CASES     251       MISSING CASES      0
```

GRADE 3, REGULAR CHAPTER 1

```
                                                RELATIVE    ADJUSTED      CUM
                                    ABSOLUTE      FREQ        FREQ        FREQ
CATEGORY LABEL              CODE      FREQ        (PCT)       (PCT)       (PCT)

10 OR MORE POINTS             1        47         22.9  (18)  22.9        22.9

7 TO 9 POINTS                 2        14          6.8  (05)   6.8        29.8

4 TO 6 POINTS                 3        18          8.8  (06)   8.8        38.5

1 TO 3 POINTS                 4        28         13.7  (16)  13.7        52.2

1 POINT OR FEWER              5        98         47.8  (55)  47.8       100.0
                                    -------     -------     -------
                          TOTAL       205        100.0       100.0

VALID CASES      205        MISSING CASES      0
```

GRADE 4, REGULAR CHAPTER 1

```
                                                RELATIVE    ADJUSTED      CUM
                                    ABSOLUTE      FREQ        FREQ        FREQ
CATEGORY LABEL              CODE      FREQ        (PCT)       (PCT)       (PCT)

10 OR MORE POINTS             1        66         27.5  (21)  27.5        27.5

7 TO 9 POINTS                 2        23          9.6  (08)   9.6        37.1

4 TO 6 POINTS                 3        36         15.0  (11)  15.0        52.1

1 TO 3 POINTS                 4        32         13.3  (12)  13.3        65.4

1 POINT OR FEWER              5        83         34.6  (47)  34.6       100.0
                                    -------     -------     -------
                          TOTAL       240        100.0       100.0

VALID CASES      240        MISSING CASES      0
```

GRADE 5, REGULAR CHAPTER 1

```
                                             RELATIVE     ADJUSTED        CUM
                                 ABSOLUTE      FREQ         FREQ         FREQ
CATEGORY LABEL            CODE     FREQ        (PCT)        (PCT)        (PCT)

10 OR MORE POINTS           1       32        14.3  (19)  14.3          14.3

7 TO 9 POINTS               2       17         7.6  (09)   7.6          21.9

4 TO 6 POINTS               3       38        17.0  (13)  17.0          38.9

1 TO 3 POINTS               4       47        21.0  (19)  21.0          59.8

1 POINT OR FEWER            5       90        40.2  (40)  40.2         100.0
                                 -------     -------      -------
                          TOTAL    224        100.0        100.0

VALID CASES      224      MISSING CASES      0
```

GRADE 6, REGULAR CHAPTER 1

```
                                                RELATIVE    ADJUSTED        CUM
                                  ABSOLUTE        FREQ        FREQ         FREQ
CATEGORY LABEL             CODE     FREQ         (PCT)       (PCT)        (PCT)

10 OR MORE POINTS             1       23          35.4 (60)  35.4          35.4

7 TO 9 POINTS                 2        6           9.2 (08)   9.2          44.6
4 TO 6 POINTS                 3        0           0.0 (07)   0.0           0.0
1 TO 3 POINTS                 4        6           9.2 (06)   9.2          53.8

1 POINT OR FEWER              5       30          46.2 (09)  46.2         100.0
                                  -------       -------     -------
                          TOTAL       65         100.0       100.0

VALID CASES      65      MISSING CASES      0
```

GRADE K, BECKER (NOT MET)

```
                                                RELATIVE    ADJUSTED        CUM
                                  ABSOLUTE        FREQ        FREQ         FREQ
CATEGORY LABEL             CODE     FREQ         (PCT)       (PCT)        (PCT)

1.9 OR ABOVE                  1       65          59.6 (52)  59.6          59.6

1.7 OR 1.8                    2       11          10.1 (13)  10.1          69.7

1.4 TO 1.6                    3       12          11.0 (09)  11.0          80.7

1.1 TO 1.3                    4       10           9.2 (15)   9.2          89.9

1.0 OR BELOW                  5       11          10.1 (12)  10.1         100.0
                                  -------       -------     -------
                          TOTAL      109         100.0       100.0

VALID CASES     109      MISSING CASES      0
```

GRADE 1, BECKER

```
                                              RELATIVE       ADJUSTED        CUM
                                  ABSOLUTE      FREQ           FREQ          FREQ
CATEGORY LABEL              CODE    FREQ        (PCT)          (PCT)         (PCT)

10 OR MORE POINTS              1      23        24.5  (11)     24.5          24.5

7 TO 9 POINTS                  2       4         4.3  (03)      4.3          28.7

4 TO 6 POINTS                  3       4         4.3  (03)      4.3          33.0

1 TO 3 POINTS                  4       2         2.1  (01)      2.1          35.1

1 POINT OR FEWER               5      61        64.9  (82)     64.9         100.0
                                   -------     -------        -------
                           TOTAL      94       100.0          100.0

VALID CASES       94       MISSING CASES       0
```

GRADE 2, BECKER (MET OR EXCEEDED)

```
                                              RELATIVE       ADJUSTED        CUM
                                  ABSOLUTE      FREQ           FREQ          FREQ
CATEGORY LABEL              CODE    FREQ        (PCT)          (PCT)         (PCT)

10 OR MORE POINTS              1      27        33.7  (27)     33.7          33.7

7 TO 9 POINTS                  2       2         2.5  (03)      2.5          36.2

4 TO 6 POINTS                  3       7         8.8  (08)      8.8          45.0

1 TO 3 POINTS                  4       5         6.3  (09)      6.3          51.3

1 POINT OR FEWER               5      39        48.7  (53)     48.7         100.0
                                   -------     -------        -------
                           TOTAL      80       100.0          100.0

VALID CASES       80       MISSING CASES       0
```

GRADE 3, BECKER (MET OR EXCEEDED)

```
                                                     RELATIVE    ADJUSTED        CUM
                                        ABSOLUTE       FREQ        FREQ          FREQ
CATEGORY LABEL                  CODE      FREQ        (PCT)       (PCT)         (PCT)

10 OR MORE POINTS                  1        10         15.4  (08)  15.4          15.4

7 TO 9 POINTS                      2         7         10.8  (02)  10.8          26.2

4 TO 6 POINTS                      3         7         10.8  (08)  10.8          36.9

1 TO 3 POINTS                      4         9         13.8  (11)  13.8          50.8

1 POINT OR FEWER                   5        32         49.2  (71)  49.2         100.0
                                        -------      -------     -------
                                TOTAL       65        100.0       100.0

VALID CASES       65      MISSING CASES      0
```

GRADE 4, SWP (MET OR EXCEEDED)

```
                                                     RELATIVE    ADJUSTED        CUM
                                        ABSOLUTE       FREQ        FREQ          FREQ
CATEGORY LABEL                  CODE      FREQ        (PCT)       (PCT)         (PCT)

10 OR MORE POINTS                  1        15         23.8  (21)  23.8          23.8

7 TO 9 POINTS                      2         3          4.8  (07)   4.8          28.6

4 TO 6 POINTS                      3        12         19.0  (14)  19.0          47.6

1 TO 3 POINTS                      4         4          6.3  (10)   6.3          54.0

1 POINT OR FEWER                   5        29         46.0  (48)  46.0         100.0
                                        -------      -------     -------
                                TOTAL       63        100.0       100.0

VALID CASES       63      MISSING CASES      0
```

GRADE 5, SWP (MET)

```
                                            RELATIVE      ADJUSTED        CUM
                              ABSOLUTE        FREQ          FREQ          FREQ
CATEGORY LABEL        CODE      FREQ          (PCT)         (PCT)         (PCT)

10 OR MORE POINTS        1        10          17.2  (24)    17.2          17.2

7 TO 9 POINTS            2         4           6.9  (05)     6.9          24.1

4 TO 6 POINTS            3        10          17.2  (14)    17.2          41.4

1 TO 3 POINTS            4         6          10.3  (14)    10.3          51.7

1 POINT OR FEWER         5        28          48.3  (43)    48.3         100.0
                               -------       -------       -------
                      TOTAL       58          100.0         100.0

VALID CASES        58     MISSING CASES        0
```

GRADE 6, SWP (NOT MET)

```
                                              RELATIVE        ADJUSTED       CUM
                                  ABSOLUTE      FREQ            FREQ         FREQ
CATEGORY LABEL            CODE      FREQ       (PCT)           (PCT)        (PCT)

10 OR MORE POINTS            1        14        27.5   (42)    27.5         27.5

7 TO 9 POINTS                2         2         3.9   (05)     3.9         31.4

4 TO 6 POINTS                3         2         3.9   (03)     3.9         35.3

1 TO 3 POINTS                4         3         5.9   (19)     5.9         41.2

1 POINT OR FEWER             5        30        58.8   (31)    58.8        100.0
                                  -------     -------         -------
                         TOTAL        51       100.0           100.0

VALID CASES       51      MISSING CASES      0
```

GRADE K, ALLISON (NOT MET)

```
                                              RELATIVE        ADJUSTED       CUM
                                  ABSOLUTE      FREQ            FREQ         FREQ
CATEGORY LABEL            CODE      FREQ       (PCT)           (PCT)        (PCT)

1.9 OR ABOVE                 1        31        41.9   (25)    41.9         41.9

1.7 OR 1.8                   2         4         5.4   (13)     5.4         47.3

1.4 TO 1.6                   3        13        17.6   (15)    17.6         64.9

1.1 TO 1.3                   4        14        18.9   (06)    18.9         83.8

1.0 OR BELOW                 5        12        16.2   (40)    16.2        100.0
                                  -------     -------         -------
                         TOTAL        74       100.0           100.0

VALID CASES       74      MISSING CASES      0
```

GRADE 1, ALLISON

```
                                              RELATIVE    ADJUSTED      CUM
                                  ABSOLUTE      FREQ        FREQ        FREQ
CATEGORY LABEL            CODE      FREQ        (PCT)       (PCT)       (PCT)

10 OR MORE POINTS            1        17        32.7  (08)  32.7        32.7

7 TO 9 POINTS                2         2         3.8  (03)   3.8        36.5

4 TO 6 POINTS                3         1         1.9  (03)   1.9        38.5

1 TO 3 POINTS                4         2         3.8  (05)   3.8        42.3

1 POINT OR FEWER             5        30        57.7  (80)  57.7       100.0
                                  -------     -------     -------
                          TOTAL       52       100.0       100.0

VALID CASES       52      MISSING CASES      0
```

GRADE 2, ALLISON (MET OR EXCEEDED)

```
                                              RELATIVE    ADJUSTED      CUM
                                  ABSOLUTE      FREQ        FREQ        FREQ
CATEGORY LABEL            CODE      FREQ        (PCT)       (PCT)       (PCT)

10 OR MORE POINTS            1        22        41.5  (38)  41.5        41.5

7 TO 9 POINTS                2         2         3.8  (08)   3.8        45.3

4 TO 6 POINTS                3         6        11.3  (12)  11.3        56.6

1 TO 3 POINTS                4         7        13.2  (08)  13.2        69.8

1 POINT OR FEWER             5        16        30.2  (33)  30.2       100.0
                                  -------     -------     -------
                          TOTAL       53       100.0       100.0

VALID CASES       53      MISSING CASES      0
```

GRADE 3, ALLISON (MET OR EXCEEDED)

```
                                         RELATIVE    ADJUSTED       CUM
                               ABSOLUTE    FREQ        FREQ        FREQ
CATEGORY LABEL          CODE     FREQ      (PCT)       (PCT)       (PCT)

10 OR MORE POINTS          1       37      31.9        31.9        31.9

7 TO 9 POINTS              2        8       6.9         6.9        38.8

4 TO 6 POINTS              3        2       1.7         1.7        40.5

1 TO 3 POINTS              4        9       7.8         7.8        48.3

1 POINT OR FEWER           5       60      51.7        51.7       100.0
                                -------   -------     -------
                       TOTAL      116     100.0       100.0

VALID CASES     116      MISSING CASES     0
```

GRADE K, BOTH SWP SCHOOLS COMBINED

```
                                         RELATIVE    ADJUSTED       CUM
                               ABSOLUTE    FREQ        FREQ        FREQ
CATEGORY LABEL          CODE     FREQ      (PCT)       (PCT)       (PCT)

1.9 OR ABOVE               1       96      52.5        52.5        52.5

1.7 OR 1.8                 2       15       8.2         8.2        60.7

1.4 TO 1.6                 3       25      13.7        13.7        74.3

1.1 TO 1.3                 4       24      13.1        13.1        87.4

1.0 OR BELOW               5       23      12.6        12.6       100.0
                                -------   -------     -------
                       TOTAL      183     100.0       100.0

VALID CASES     183      MISSING CASES     0
```

GRADE 1, SWP

```
                                               RELATIVE   ADJUSTED      CUM
                                    ABSOLUTE     FREQ       FREQ        FREQ
CATEGORY LABEL              CODE      FREQ       (PCT)      (PCT)       (PCT)

10 OR MORE POINTS              1        40       27.4       27.4        27.4

7 TO 9 POINTS                  2         6        4.1        4.1        31.5

4 TO 6 POINTS                  3         5        3.4        3.4        34.9

1 TO 3 POINTS                  4         4        2.7        2.7        37.7

1 POINT OR FEWER               5        91       62.3       62.3       100.0
                                    -------    -------    -------
                           TOTAL       146      100.0      100.0

VALID CASES      146      MISSING CASES      0
```

GRADE 2, SWP

```
                                               RELATIVE   ADJUSTED      CUM
                                    ABSOLUTE     FREQ       FREQ        FREQ
CATEGORY LABEL              CODE      FREQ       (PCT)      (PCT)       (PCT)

10 OR MORE POINTS              1        49       36.8       36.8        36.8

7 TO 9 POINTS                  2         4        3.0        3.0        39.8

4 TO 6 POINTS                  3        13        9.8        9.8        49.6

1 TO 3 POINTS                  4        12        9.0        9.0        58.6

1 POINT OR FEWER               5        55       41.4       41.4       100.0
                                    -------    -------    -------
                           TOTAL       133      100.0      100.0

VALID CASES      133      MISSING CASES      0
```

GRADE 3, SWP

F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE
(None are significant)

```
     GRADE = K
     TEST =   K Serve
     NUMBER OF CASES = 479

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  282.05756
                                           DF = 2, 473      F =  2.584333637432013
     SUM OF SQUARES, MODEL 5 =  285.13972


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  282.05756
                                           DF = 1, 473      F =  .8876163432740453
     SUM OF SQUARES, MODEL 2 =  282.58686


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  282.58686
                                           DF = 1, 474    F =  1.255940350517367
     SUM OF SQUARES, MODEL 3 =  283.33562


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  282.05756
                                           DF = 2, 473      F =  1.071629457475697
     SUM OF SQUARES, MODEL 3 =  283.33562


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  283.33562
                                          DF = 1, 475      F =  2.04447291155567
     SUM OF SQUARES, MODEL 4 =  284.55514


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  285.13972
                                          DF = 1, 475         F =  .2474953331550992
     SUM OF SQUARES, MODEL 6 =  285.28329


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  285.28329
                                          DF = 1, 476         F =  2.365481737788309
     SUM OF SQUARES, MODEL 7 =  286.70603
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS—THREE GROUP CASE

      GRADE = K
      TEST = LOCATION ALL 3
      NUMBER OF CASES =  163

  MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

      SUM OF SQUARES, MODEL 1 =  115.26242
                                            DF = 3, 154      F =  .670628351084993
      SUM OF SQUARES, MODEL 5 =  116.76823

  MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

      SUM OF SQUARES, MODEL 1 =  115.26242
                                          DF = 2, 154      F =  1.005680671121081
      SUM OF SQUARES, MODEL 2 =  116.76725

  MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

      SUM OF SQUARES, MODEL 2 =  116.76735
                                          DF = 2, 156     F =  .5807990812539592
      SUM OF SQUARES, MODEL 3 =  117.63732

  MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

      SUM OF SQUARES, MODEL 1 =  115.26242
                                           DF = 4, 154      F =  .7932650555141911
      SUM OF SQUARES, MODEL 3 =  117.63732

  MODEL 3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

      SUM OF SQUARES, MODEL 3 =  117.63732
                                          DF =  2, 158      F =  .06332769226636495
      SUM OF SQUARES, MODEL 4 =  117.73162

  MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

      SUM OF SQUARES, MODEL 5 =  116.76323
                                         DF = 2, 157        F =  .6329372724070591
      SUM OF SQUARES, MODEL 6 =  117.70972

  MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

      SUM OF SQUARES, MODEL 6 =  117.70972
                                         DF = 2, 159        F =  .06539129629309526
      SUM OF SQUARES, MODEL 7 =  117.80654
```

```
                         F VALUES FOR SPSS REGRESSION RESULTS—THREE GROUP CASE

   GRADE = 1
   TEST = LOCATION ALL 3
   NUMBER OF CASES =  339

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

   SUM OF SQUARES, MODEL 1 =  131.404
                                        DF = 3, 330      F =  3.904362119876531
   SUM OF SQUARES, MODEL 5 =  136.06808
                                                               p<.01

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

   SUM OF SQUARES, MODEL 1 =  131.404
                                       DF = 2, 330      F =  3.292895013584003
   SUM OF SQUARES, MODEL 2 =  134.02635
                                                            p <.05

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

   SUM OF SQUARES, MODEL 2 =  134.02635
                                       DF = 2, 332     F =  .4889844022294135
   SUM OF SQUARES, MODEL 3 =  134.42115

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

   SUM OF SQUARES, MODEL 1 =  131.404
                                        DF = 4, 330      F =  1.894271673617242
   SUM OF SQUARES, MODEL 3 =  134.42115

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

   SUM OF SQUARES, MODEL 3 =  134.42115
                                       DF =  2, 334      F =  .4146886255230661
   SUM OF SQUARES, MODEL 4 =  134.75494

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

   SUM OF SQUARES, MODEL 5 =  136.06808
                                       DF = 2, 333      F =  .2798370124719967
   SUM OF SQUARES, MODEL 6 =  136.29677

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

   SUM OF SQUARES, MODEL 6 =  136.29677
                                       DF = 2, 335      F =  .2150637907992
   SUM OF SQUARES, MODEL 7 =  136.47177
```

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```
                 F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

   GRADE = 1
   TEST = LOCATION 1 VS 2
   NUMBER OF CASES =  306

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

   SUM OF SQUARES, MODEL 1 =  110.32674
                                          DF = 2, 300      F =  1.617948649620208
   SUM OF SQUARES, MODEL 5 =  111.51676


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

   SUM OF SQUARES, MODEL 1 =  110.32674
                                          DF = 1, 300      F =  1.02622446743192
   SUM OF SQUARES, MODEL 2 =  110.70414


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

   SUM OF SQUARES, MODEL 2 =  110.70414
                                          DF = 1, 301    F =  .2475068231413976
   SUM OF SQUARES, MODEL 3 =  110.79517


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

   SUM OF SQUARES, MODEL 1 =  110.32674
                                          DF = 2, 300      F =  .6368764272378593
   SUM OF SQUARES, MODEL 3 =  110.79517


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

   SUM OF SQUARES, MODEL 3 =  110.79517
                                         DF = 1, 302       F =  .1428020734116813
   SUM OF SQUARES, MODEL 4 =  110.84756


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

   SUM OF SQUARES, MODEL 5 =  111.51676
                                         DF = 1, 302         F =  .09221125147467262
   SUM OF SQUARES, MODEL 6 =  111.55081


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

   SUM OF SQUARES, MODEL 6 =  111.55081
                                         DF = 1, 303         F =  .04965306840890844
   SUM OF SQUARES, MODEL 7 =  111.56909
```

F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

```
     GRADE = 1
     TEST = LOCATION 1 VS 3
     NUMBER OF CASES = 226

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 = 95.32622
                                           DF = 2, 220      F = 4.2317119046575O4
     SUM OF SQUARES, MODEL 5 = 98.99343
                                                                p<.025

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 = 95.32622
                                           DF = 1, 220      F = 5.812495240029455
     SUM OF SQUARES, MODEL 2 = 97.84478
                                                                p<.025

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 = 97.84478
                                           DF = 1, 221   F = .3874538835899069
     SUM OF SQUARES, MODEL 3 = 98.01632


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 = 95.32622
                                           DF = 2, 220      F = 3.104193159028023
     SUM OF SQUARES, MODEL 3 = 98.01632
                                                                p<.05

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 = 98.01632
                                          DF = 1, 222       F = .6970092327481809
     SUM OF SQUARES, MODEL 4 = .98.32406


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 = 98.99343
                                          DF = 1, 222          F = .3357131882388582
     SUM OF SQUARES, MODEL 6 = 99.14313


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 = 99.14313
                                         .DF = 1, 223          F = .4073434034208902
     SUM OF SQUARES, MODEL 7 = 99.32423
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

     GRADE = 1
     TEST = LOCATION 2 VS 3
     NUMBER OF CASES =  146

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  57.15504
                                          DF = 2, 140      F =  5.475721826106674
     SUM OF SQUARES, MODEL 5 =  61.62597
                                                                 p<.01

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  57.15504
                                          DF = 1, 140      F =  2.828265013899038
     SUM OF SQUARES, MODEL 2 =  58.30968
                                                                  p <.10   (NS)

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  58.30968
                                          DF = 1, 141    F =  1.480858752783412
     SUM OF SQUARES, MODEL 3 =  58.92208

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  57.15504
                                          DF = 2, 140      F =  2.164162600533566
     SUM OF SQUARES, MODEL 3 =  58.92208

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  58.92208
                                         DF = 1, 142       F =  .3745563632512663
     SUM OF SQUARES, MODEL 4 =  59.0775

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  61.62597
                                         DF = 1, 142         F =  .5252938006493042
     SUM OF SQUARES, MODEL 6 =  61.85394

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  61.85394
                                         DF = 1, 143         F =  .1960027121958588
     SUM OF SQUARES, MODEL 7 =  61.93872
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

    GRADE = 2
    TEST = LOCATION 1 VS 2        (INSUFFICIENT CASES FOR 3-GROUP COMPARISON)
    NUMBER OF CASES =  236

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 =  70.93745
                                          DF = 2, 230      F =  1.054053253958235
    SUM OF SQUARES, MODEL 5 =  71.58764


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 =  70.93745
                                          DF = 1, 230      F =  1.531367422990249
    SUM OF SQUARES, MODEL 2 =  71.40976


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 =  71.40976
                                          DF = 1, 231    F =  1.21465455142266
    SUM OF SQUARES, MODEL 3 =  71.78525


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 =  70.93745
                                          DF = 2, 230      F =  1.374408017203885
    SUM OF SQUARES, MODEL 3 =  71.78525


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 =  71.78525
                                         DF = 1, 232       F =  1.292744679451669D-04
    SUM OF SQUARES, MODEL 4 =  71.78529


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 =  71.58764
                                         DF = 1, 232          F =  .7436948612916997
    SUM OF SQUARES, MODEL 6 =  71.81712


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 =  71.81712
                                         DF = 1, 233          F =  3.439012870471127D-03
    SUM OF SQUARES, MODEL 7 =  71.81818
```

```
             F VALUES FOR SPSS REGRESSION RESULTS—THREE GROUP CASE

     GRADE = 3
     TEST = LOCATION ALL 3
     NUMBER OF CASES =  251

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  101.22223
                                          DF = 3, 242      F =  1.4764336516466152
     SUM OF SQUARES, MODEL 5 =  103.07489


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  101.22223
                                          DF = 2, 242      F =  1.854897980413986
     SUM OF SQUARES, MODEL 2 =  102.77394


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  102.77394
                                          DF = 2, 244      F =  .4008977373037811
     SUM OF SQUARES, MODEL 3 =  103.11166


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  101.22223
                                          DF = 4, 242      F =  1.1293024753433389
     SUM OF SQUARES, MODEL 3 =  103.11166


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  103.11166
                                          DF =  2, 246     F =  1.0196393883988596
     SUM OF SQUARES, MODEL 4 =  103.96643


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  103.07489
                                          DF = 2, 245      F =  .2444535715730579
     SUM OF SQUARES, MODEL 6 =  103.28058


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  103.28058
                                          DF = 2, 247      F =  .9382503467738073
     SUM OF SQUARES, MODEL 7 =  104.06522
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

    GRADE = 4                        (insufficient cases for three group
    TEST = LOCATION 1 VS 2                                   comparisons)
    NUMBER OF CASES = 192

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 = 61.01008
                                          DF = 2, 186      F = 6.85426326272642
    SUM OF SQUARES, MODEL 5 = 65.50663                            p<.01


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 = 61.01008
                                          DF = 1, 186      F = 5.955284766058334
    SUM OF SQUARES, MODEL 2 = 62.96348                            p <.025


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 = 62.96348
                                          DF = 1, 187    F = 4.29541632705181
    SUM OF SQUARES, MODEL 3 = 64.40976                          p <.05


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 = 61.01008
                                          DF = 2, 186      F = 5.182262340911535
    SUM OF SQUARES, MODEL 3 = 64.40976                            p <.01


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 = 64.40976
                                         DF = 1, 188       F = 3.074793633759848
    SUM OF SQUARES, MODEL 4 = 65.4632


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 = 65.50663
                                         DF = 1, 188         F = 1.631847035941248
    SUM OF SQUARES, MODEL 6 = 66.07523


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 = 66.07523
                                         DF = 1, 189         F = 3.860763859618798
    SUM OF SQUARES, MODEL 7 = 67.42497
                                                                    p<.05
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS—THREE GROUP CASE

    GRADE = 5
    TEST = LOCATION ALL 3
    NUMBER OF CASES =  240

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 =  79.74839
                                          DF = 3, 231      F =  1.615207780370239
    SUM OF SQUARES, MODEL 5 =  81.42125


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 =  79.74839
                                        DF = 2, 231      F =  1.231189582951593
    SUM OF SQUARES, MODEL 2 =  80.59848


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 =  80.59848
                                        DF = 2, 233    F =  .09253443489257148
    SUM OF SQUARES, MODEL 3 =  80.65558


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 =  79.74833
                                          DF = 4, 231      F =  .6569430520973414
    SUM OF SQUARES, MODEL 3 =  80.65558


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 =  80.65558
                                         DF =  2, 235      F =  4.49945942983732
    SUM OF SQUARES, MODEL 4 =  83.74449                           p <.025


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 =  81.42125
                                         DF = 2, 234       F =  .2795483979919246
    SUM OF SQUARES, MODEL 6 =  81.61579


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 =  81.61579
                                         DF = 2, 236       F =  4.164449550754822
    SUM OF SQUARES, MODEL 7 =  84.49617                           p <.025
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

    GRADE = 5
    TEST = LOCATION 1 VS 3
    NUMBER OF CASES =  136

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 =  41.6895
                                             DF = 2, 130     F =  2.1182551961525O9
    SUM OF SQUARES, MODEL 5 =  43.0481


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 =  41.6895
                                             DF = 1, 130     F =  1.94335024406625
    SUM OF SQUARES, MODEL 2 =  42.31271


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 =  42.31271
                                             DF = 1, 131   F =  5.91335322176131 2D-03
    SUM OF SQUARES, MODEL 3 =  42.31462


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 =  41.6895
                                             DF = 2, 130     F =  .974653O9010662
    SUM OF SQUARES, MODEL 3 =  42.31462


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 =  42.31462
                                            DF = 1, 132      F =  9.525547434905477
    SUM OF SQUARES, MODEL 4 =  45.36818                             p<.01


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 =  43.0481
                                            DF = 1, 132        F =  .5953294105895486
    SUM OF SQUARES, MODEL 6 =  43.24225


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 =  43.24225
                                            DF = 1, 133        F =  7.987181749330805
    SUM OF SQUARES, MODEL 7 =  45.83912                               p<.01
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

    GRADE = 5
    TEST = LOCATION 1 VS 2
    NUMBER OF CASES =  215

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 =  73.71955
                                          DF = 2, 209      F =  2.304726697327915
    SUM OF SQUARES, MODEL 5 =  75.34542                         p<.10 (NS)

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 =  73.71955
                                          DF = 1, 209      F =  1.794910440988857
    SUM OF SQUARES, MODEL 2 =  74.35266

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 =  74.35266
                                          DF = 1, 210    F =  .05312654584247117
    SUM OF SQUARES, MODEL 3 =  74.37147

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 =  73.71955
                                          DF = 2, 209      F =  .9241190430489588
    SUM OF SQUARES, MODEL 3 =  74.37147

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 =  74.37147
                                         DF = 1, 211       F =  .01682405901080391
    SUM OF SQUARES, MODEL 4 =  74.3774

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 =  75.34542
                                         DF = 1, 211          F =  .06648234225782596
    SUM OF SQUARES, MODEL 6 =  75.36916

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 =  75.36916
                                         DF = 1, 212          F =  2.109616187846363D-03
    SUM OF SQUARES, MODEL 7 =  75.36991
```

```
                F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

    GRADE = 5
    TEST = LOCATION 2 VS 3
    NUMBER OF CASES = 129

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 = 44.08774
                                          DF = 2, 123      F = .5039101573362578
    SUM OF SQUARES, MODEL 5 = 44.44898


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 = 44.08774
                                          DF = 1, 123      F = .3743476077476407
    SUM OF SQUARES, MODEL 2 = 44.22192


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 = 44.22192
                                          DF = 1, 124    F = .1420526291033965
    SUM OF SQUARES, MODEL 3 = 44.27258


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 = 44.08774
                                          DF = 2, 123      F = .2578417492028401
    SUM OF SQUARES, MODEL 3 = 44.27258


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 = 44.27258
                                          DF = 1, 125      F = 7.599173122506071
    SUM OF SQUARES, MODEL 4 = 46.96406                          p<.01


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 = 44.44898
                                          DF = 1, 125        F = .336425042824377
    SUM OF SQUARES, MODEL 6 = 44.56861


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 = 44.56861
                                          DF = 1, 126        F = 7.459166888983075
    SUM OF SQUARES, MODEL 7 = 47.20706                            p<.01
```

```
                     F VALUES FOR FPYS REGRESSION RESULTS—THREE GROUP CASE

     GRADE = 6
     TEST = LOCATION ALL 3
     NUMBER OF CASES = 224

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  79.27769
                                          DF = 3, 215      F =  1.905152214534339
     SUM OF SQUARES, MODEL 5 =  81.38517

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  79.27769
                                         DF = 2, 215      F =  .766814093599347
     SUM OF SQUARES, MODEL 2 =  79.84319

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  79.84319
                                         DF = 2, 217    F =  .9721643536733471
     SUM OF SQUARES, MODEL 3 =  80.485

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  79.27769
                                          DF = 4, 215      F =  .9135520100295566
     SUM OF SQUARES, MODEL 3 =  80.485

MODEL 3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  80.485
                                         DF =  2, 219      F =  1.195200969124683
     SUM OF SQUARES, MODEL 4 =  81.3635

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  81.38517
                                        DF = 2, 218        F =  1.392387212359734
     SUM OF SQUARES, MODEL 6 =  82.4248

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  82.4248
                                        DF = 2, 220        F =  1.055108413972493
     SUM OF SQUARES, MODEL 7 =  83.21541
```

```
                F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE
                          (Model 6 plotted)

   GRADE = K
   TEST = RETAINEES
   NUMBER OF CASES =  293

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

   SUM OF SQUARES, MODEL 1 =  214.46255
                                           DF = 2, 287      F =  10.29538364623567
   SUM OF SQUARES, MODEL 5 =  229.84913                           p <.01

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

   SUM OF SQUARES, MODEL 1 =  214.46255
                                           DF = 1, 287      F =  .4941945808254161
   SUM OF SQUARES, MODEL 2 =  214.83184

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

   SUM OF SQUARES, MODEL 2 =  214.83184
                                           DF = 1, 288    F =  .1355731999502512
   SUM OF SQUARES, MODEL 3 =  214.93297

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

   SUM OF SQUARES, MODEL 1 =  214.46255
                                           DF = 2, 287      F =  .3147648388961155
   SUM OF SQUARES, MODEL 3 =  214.93297

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

   SUM OF SQUARES, MODEL 3 =  214.93297
                                          DF = 1, 289       F =  .4495284273976231
   SUM OF SQUARES, MODEL 4 =  215.26729

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

   SUM OF SQUARES, MODEL 5 =  229.84913
                                          DF = 1, 289         F =  .1142425033325201
   SUM OF SQUARES, MODEL 6 =  229.93999

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

   SUM OF SQUARES, MODEL 6 =  229.93999
                                          DF = 1, 290         F =  4.369662275796386
   SUM OF SQUARES, MODEL 7 =  233.40468                             p <.05
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

     GRADE = 1
     TEST = RETAINEES
     NUMBER OF CASES =  180

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  88.17002
                                              DF = 2, 174      F =  .2682820078752401
     SUM OF SQUARES, MODEL 5 =  88.44191


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  88.17002
                                              DF = 1, 174      F =  .3751152602664716
     SUM OF SQUARES, MODEL 2 =  88.3601


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  88.3601
                                              DF = 1, 175    F =  .3863621702555808
     SUM OF SQUARES, MODEL 3 =  88.55518


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  88.17002
                                              DF = 2, 174      F =  .3800489100490175
     SUM OF SQUARES, MODEL 3 =  88.55518


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  88.55518
                                             DF = 1, 176       F =  .6251361015809561
     SUM OF SQUARES, MODEL 4 =  88.86972


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  88.44191
                                             DF = 1, 176         F =  .4617213716890562
     SUM OF SQUARES, MODEL 6 =  88.67393


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  88.67393
                                             DF = 1, 177         F =  .5725747127707083
     SUM OF SQUARES, MODEL 7 =  88.96078
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

     GRADE = 2
     TEST = RETAINEES
     NUMBER OF CASES =  84

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  19.80247
                                          DF = 2, 78      F =  3.130344345932602
     SUM OF SQUARES, MODEL 5 =  21.39192


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  19.80247
                                          DF = 1, 78      F =  2.48749575179258
     SUM OF SQUARES, MODEL 2 =  20.43399


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  20.43399
                                          DF = 1, 79    F =  .5105194824897127
     SUM OF SQUARES, MODEL 3 =  20.56604


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  19.80247
                                          DF = 2, 78      F =  1.503813918162734
     SUM OF SQUARES, MODEL 3 =  20.56604


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  20.56604
                                         DF = 1, 80       F =  .07643668883265963
     SUM OF SQUARES, MODEL 4 =  20.58569


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  21.39192
                                         DF = 1, 80         F =  .2710930108190388
     SUM OF SQUARES, MODEL 6 =  21.46441


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  21.46441
                                         DF = 1, 81         F =  7.547377262988555D-05
     SUM OF SQUARES, MODEL 7 =  21.46443
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

     GRADE = 3
     TEST = RETAINEES
     NUMBER OF CASES =  53

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  18.07603
                                              DF = 2, 47      F =  .3176966955686625
     SUM OF SQUARES, MODEL 5 =  18.3204


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  18.07603
                                              DF = 1, 47      F =  .5661519703164911
     SUM OF SQUARES, MODEL 2 =  18.29377


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  18.29377
                                              DF = 1, 48    F =  .09634755438600217
     SUM OF SQUARES, MODEL 3 =  18.33049


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  18.07603
                                              DF = 2, 47      F =  .3308143436362967
     SUM OF SQUARES, MODEL 3 =  18.33049


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  18.33049
                                             DF = 1, 49       F =  1.864356053766156
     SUM OF SQUARES, MODEL 4 =  19.02793


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  18.3204
                                             DF = 1, 49         F =  .02904630903255174
     SUM OF SQUARES, MODEL 6 =  18.33126


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  18.33126
                                             DF = 1, 50         F =  1.951066102384671
     SUM OF SQUARES, MODEL 7 =  19.04657
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

     GRADE = 4
     TEST = RETAINEES
     NUMBER OF CASES =  55

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  29.54656
                                              DF = 2, 49      F =  .1745797141866934
     SUM OF SQUARES, MODEL 5 =  29.7571


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  29.54656
                                              DF = 1, 49      F =  .3317959857255806
     SUM OF SQUARES, MODEL 2 =  29.74663


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  29.74663
                                              DF = 1, 50    F =  .280098955747254
     SUM OF SQUARES, MODEL 3 =  29.91327


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  29.54656
                                              DF = 2, 49      F =  .3040758382701734
     SUM OF SQUARES, MODEL 3 =  29.91327


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  29.91327
                                             DF = 1, 51       F =  .1284322977728631
     SUM OF SQUARES, MODEL 4 =  29.9886


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  29.7571
                                             DF = 1, 51         F =  .7133840327182431
     SUM OF SQUARES, MODEL 6 =  30.17334


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  30.17334
                                             DF = 1, 52         F =  .028797607424302
     SUM OF SQUARES, MODEL 7 =  30.19005
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

     GRADE = 5
     TEST = RETAINEES
     NUMBER OF CASES =  37

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  10.57715
                                                DF = 2, 31      F =  1.329490458204715
     SUM OF SQUARES, MODEL 5 =  11.48439

MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  10.57715
                                                DF = 1, 31      F =  2.24054400287412
     SUM OF SQUARES, MODEL 2 =  11.34162

MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  11.34162
                                                DF = 1, 32    F =  .7477168164688988
     SUM OF SQUARES, MODEL 3 =  11.60663

MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  10.57715
                                                DF = 2, 31      F =  1.508623778617113
     SUM OF SQUARES, MODEL 3 =  11.60663

MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  11.60663
                                               DF = 1, 33       F =  1.002001442279112
     SUM OF SQUARES, MODEL 4 =  11.95905

MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  11.48439
                                               DF = 1, 33         F =  1.016258591009187
     SUM OF SQUARES, MODEL 6 =  11.83806

MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  11.83806
                                               DF = 1, 34         F =  .7680549008874771
     SUM OF SQUARES, MODEL 7 =  12.10548
```

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```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                   (Model 3 plotted)
     GRADE = 1-3
     TEST = FORMER TITLE 1
     NUMBER OF CASES =  374

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  257.34373
                                               DF = 2, 368      F =  3.63914893127569
     SUM OF SQUARES, MODEL 5 =  262.43347                              p<.05


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  257.34373
                                               DF = 1, 368      F =  .5612726604996336
     SUM OF SQUARES, MODEL 2 =  257.73623


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  257.73623
                                               DF = 1, 369    F =  .2015542013631526
     SUM OF SQUARES, MODEL 3 =  257.87701


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  257.34373
                                               DF = 2, 368      F =  .3812936106894836
     SUM OF SQUARES, MODEL 3 =  257.87701


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  257.87701
                                              DF = 1, 370       F =  9.395896516715474
     SUM OF SQUARES, MODEL 4 =  264.42562                               p <.01


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  262.43347
                                              DF = 1, 370          F =  1.883671697821166
     SUM OF SQUARES, MODEL 6 =  263.76952


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  263.76952
                                              DF = 1, 371          F =  8.279572711812956
     SUM OF SQUARES, MODEL 7 =  269.65604                                 p <.01
```

```
                     F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                  (Model 3 Plotted)
    GRADE = 2-4
    TEST = FT2
    NUMBER OF CASES =  237

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 =  163.14125
                                              DF = 2, 231      F =  4.838537862128678
    SUM OF SQUARES, MODEL 5 =  169.97558
                                                                   P<.01

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 =  163.14125
                                              DF = 1, 231      F =  1.455370974538937
    SUM OF SQUARES, MODEL 2 =  164.16909

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 =  164.16909
                                              DF = 1, 232    F =  .9406248155484144
    SUM OF SQUARES, MODEL 3 =  164.8347

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 =  163.14125
                                              DF = 2, 231      F =  1.198921027024132
    SUM OF SQUARES, MODEL 3 =  164.8347

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 =  164.8347
                                             DF = 1, 233       F =  6.274805244284108
    SUM OF SQUARES, MODEL 4 =  169.27378
                                                                  P <.025

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 =  169.97558
                                             DF = 1, 233         F =  .2167485470559902
    SUM OF SQUARES, MODEL 6 =  170.1337

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 =  170.1337
                                             DF = 1, 234         F =  6.353650217446633
    SUM OF SQUARES, MODEL 7 =  174.75323
                                                                   P<.025
```

F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

Model 6 Plotted

```
     GRADE = 3-5
     TEST = FT3
     NUMBER OF CASES =  196

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  152.10787
                                              DF = 2, 190      F =  1.809134859360006
     SUM OF SQUARES, MODEL 5 =  155.00454


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  152.10787
                                              DF = 1, 190      F =  .1793102487070539
     SUM OF SQUARES, MODEL 2 =  152.25142


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  152.25142
                                              DF = 1, 191    F =  1.642409049452535
     SUM OF SQUARES, MODEL 3 =  153.56063


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  152.10787
                                              DF = 2, 190      F =  .9073310933878665
     SUM OF SQUARES, MODEL 3 =  153.56063


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  153.56063
                                             DF = 1, 192       F =  2.720584826983325
     SUM OF SQUARES, MODEL 4 =  155.73654


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  155.00454
                                             DF = 1, 192          F =  2.930032371955035
     SUM OF SQUARES, MODEL 6 =  157.37


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  157.37
                                             DF = 1, 193          F =  3.38362591345238
     SUM OF SQUARES, MODEL 7 =  160.12897
```

P<.05

```
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
```

(NONE ARE SIGNIFICANT)

```
     GRADE = 4-6
     TEST = FT4
     NUMBER OF CASES =  386

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  291.45609
                                             DF = 2, 380      F =  .08239354339790524
     SUM OF SQUARES, MODEL 5 =  291.58248


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  291.45609
                                             DF = 1, 380      F =  5.880131034484717D-03
     SUM OF SQUARES, MODEL 2 =  291.4606


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  291.4606
                                             DF = 1, 381    F =  .2018592564483868
     SUM OF SQUARES, MODEL 3 =  291.61502


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  291.45609
                                             DF = 2, 380      F =  .1036063442695592
     SUM OF SQUARES, MODEL 3 =  291.61502


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  291.61502
                                            DF = 1, 382       F =  .1926930324202762
     SUM OF SQUARES, MODEL 4 =  291.76212


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  291.58248
                                            DF = 1, 382         F =  .2707699035964009
     SUM OF SQUARES, MODEL 6 =  291.78916


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  291.78916
                                            DF = 1, 383         F =  .1582329172201027
     SUM OF SQUARES, MODEL 7 =  291.90971
```

```
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      INFORMATION ABOUT TITLE 1 AND CHAPTER 1 PROGRAMS                 |1002
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TITLE 1 TRADITIONAL AREA CODES                                         |1005
           01   14   26   46   56   64   70                            |1006
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    101  104  105  109  110  111  112  114                             |1021
    116  118  122  123  124  125  126  127              N = 24         |1022
    133  134  135  139  141  145  146  150                             |1023
---------------------------------------------------------------------- |1024
                                                                       |1025
  TITLE 1 SCHOOLS 1981-82 (FROM PROGRAMMER'S NOTEBOOK)                 |1026
    101  104  105  108  109  111  114  116  119                        |1027
    122  124  125  126  127  129  133  134  135         N = 28         |1028
    139  140  141  142  144  145  150  157  160  168                   |1029
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                                                                       |1030
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    101  102  104  105  108  109  110  111  112                        |1032
    114  116  122  124  125  126  127  129  133         N = 27         |1033
    134  135  139  141  142  145  150  152  157                        |1034
---------------------------------------------------------------------- |1001
                                                                       |1035
*                                                                |TK|0090
```

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```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

     GRADE = K
     TEST = LANGUAGE 1YR
     NUMBER OF CASES =  247

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  141.92474
                                              DF = 2, 241      F =  8.854042924440099
     SUM OF SQUARES, MODEL 5 =  152.35302                                p<.01


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  141.92474
                                              DF = 1, 241      F =  .0208694410854717
     SUM OF SQUARES, MODEL 2 =  141.93703


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  141.93703
                                              DF = 1, 242.  F =  .3918388316283639
     SUM OF SQUARES, MODEL 3 =  142.16685


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  141.92474
                                              DF = 2, 241      F =  .2055614475672139
     SUM OF SQUARES, MODEL 3 =  142.16685


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  142.16685
                                             DF = 1, 243       F =  1.804362409380246
     SUM OF SQUARES, MODEL 4 =  143.22249


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  152.35302
                                             DF = 1, 243         F =  2.038495922168132
     SUM OF SQUARES, MODEL 6 =  153.63109


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  153.63109
                                             DF = 1, 244         F =  .2945354355033208
     SUM OF SQUARES, MODEL 7 =  153.81654
```

```
                F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

    GRADE = 1
    TEST = LANGUAGE 1YR
    NUMBER OF CASES =  422

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  302.05655
                                              DF = 2, 416     F =  .5425855522749011
     SUM OF SQUARES, MODEL 5 =  302.84449


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  302.05655
                                              DF = 1, 416     F =  .7255912841486085
     SUM OF SQUARES, MODEL 2 =  302.5834


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  302.5834
                                              DF = 1, 417   F =  .1318183680929046
     SUM OF SQUARES, MODEL 3 =  302.67905


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  302.05655
                                              DF = 2, 416     F =  .4286614542872865
     SUM OF SQUARES, MODEL 3 =  302.67905


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  302.67905
                                              DF = 1, 418     F =  .03267447813119821
     SUM OF SQUARES, MODEL 4 =  302.70271


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  302.84449
                                              DF = 1, 418        F =  .3707755752795692
     SUM OF SQUARES, MODEL 6 =  303.11312


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  303.11312
                                              DF = 1, 419        F =  .02226921091372102
     SUM OF SQUARES, MODEL 7 =  303.12923
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE
                                  (MODEL 3   PLOTTED)
     GRADE = 2
     TEST = LANGUAGE 1YR
     NUMBER OF CASES =  326

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  230.7107
                                              DF = 2, 320      F =  2.882605791582271
     SUM OF SQUARES, MODEL 5 =  234.86725


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  230.7107
                                              DF = 1, 320      F =  .3592100409733888
     SUM OF SQUARES, MODEL 2 =  230.96968


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  230.96968
                                              DF = 1, 321    F =  .5349729453666779
     SUM OF SQUARES, MODEL 3 =  231.35461


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  230.7107
                                              DF = 2, 320      F =  .446557528541152
     SUM OF SQUARES, MODEL 3 =  231.35461


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  231.35461
                                             DF = 1, 322       F =  13.31532196397557   * *
     SUM OF SQUARES, MODEL 4 =  240.92157                               p<.01


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  234.86725
                                             DF = 1, 322         F =  .9868640263808579
     SUM OF SQUARES, MODEL 6 =  235.58707


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  235.58707
                                             DF = 1, 323         F =  13.88669114990054  * *
     SUM OF SQUARES, MODEL 7 =  245.71563                                 p <.01
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                 (MODEL 6 PLOTTED)
     GRADE = 3
     TEST = LANGUAGE 1YR
     NUMBER OF CASES =  337

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  201.5595
                                            DF = 2, 331     F =  .2846909225315641
     SUM OF SQUARES, MODEL 5 =  201.90622


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  201.5595
                                            DF = 1, 331     F =  .4149662506604828
     SUM OF SQUARES, MODEL 2 =  201.81219


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  201.81219
                                            DF = 1, 332   F =  .5102258689130724
     SUM OF SQUARES, MODEL 3 =  202.12234


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  201.5595
                                            DF = 2, 331     F =  .4621465125682531
     SUM OF SQUARES, MODEL 3 =  202.12234


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  202.12234
                                            DF = 1, 333     F =  38.08710130705287  **
     SUM OF SQUARES, MODEL 4 =  225.24022
                                                                 P<.01

MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  201.90622
                                            DF = 1, 333       F =  .3575475287487481
     SUM OF SQUARES, MODEL 6 =  202.12301


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  202.12301
                                            DF = 1, 334       F =  38.42909226416131
     SUM OF SQUARES, MODEL 7 =  225.37871
                                                                 P<.01 **
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                (Model 6    PLOTTED)
     GRADE = 4
     TEST = LANGUAGE 1YR
     NUMBER OF CASES =  200

  MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  114.49147
                                                DF = 2, 194      F =  .9753928393093388
     SUM OF SQUARES, MODEL 5 =  115.64275


  MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  114.49147
                                                DF = 1, 194      F =  .2269206605522632
     SUM OF SQUARES, MODEL 2 =  114.62539


  MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  114.62539
                                                DF = 1, 195    F =  .4823394712114029
     SUM OF SQUARES, MODEL 3 =  114.90892


  MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  114.49147
                                                DF = 2, 194      F =  .3536739461900544
     SUM OF SQUARES, MODEL 3 =  114.90892


  MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  114.90892
                                                DF = 1, 196      F =  11.66668940931652
     SUM OF SQUARES, MODEL 4 =  121.74875
                                                                    P<.01 **

  MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  115.64275
                                                DF = 1, 196        F =  2.980352853940257
     SUM OF SQUARES, MODEL 6 =  117.4012


  MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  117.4012
                                                DF = 1, 197        F =  14.83081050278873
     SUM OF SQUARES, MODEL 7 =  126.23955
                                                                    P<.01 **
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

     GRADE = 5
     TEST = LANGUAGE 1YR
     NUMBER OF CASES =  237

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  137.162
                                             DF = 2, 231      F =  .1365584855863896
     SUM OF SQUARES, MODEL 5 =  137.32417


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  137.162
                                             DF = 1, 231      F =  .269597118735511
     SUM OF SQUARES, MODEL 2 =  137.32208


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  137.32208
                                             DF = 1, 232    F =  2.472979145087229
     SUM OF SQUARES, MODEL 3 =  138.78585


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  137.162
                                             DF = 2, 231      F =  1.367395306280166
     SUM OF SQUARES, MODEL 3 =  138.78585


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  138.78585
                                             DF = 1, 233      F =  .07313051006281031
     SUM OF SQUARES, MODEL 4 =  138.82941


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  137.32417
                                             DF = 1, 233        F =  3.546338273881428
     SUM OF SQUARES, MODEL 6 =  139.41429                           (NS)


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  139.41429
                                             DF = 1, 234        F =  .3741098563138679
     SUM OF SQUARES, MODEL 7 =  139.63718
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                  (MODELS PLOTTED)
     GRADE = 6
     TEST = LANGUAGE 1YR
     NUMBER OF CASES =  222

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  118.21372
                                              DF = 2, 216      F =  .7281753759208314
     SUM OF SQUARES, MODEL 5 =  119.01076


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  118.21372
                                              DF = 1, 216      F =  7.089532416370410-03
     SUM OF SQUARES, MODEL 2 =  118.2176


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  118.2176
                                              DF = 1, 217    F =  6.894084214194841
     SUM OF SQUARES, MODEL 3 =  121.97337                             P <.01


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  118.21372
                                              DF = 2, 216      F =  3.434814503764875
     SUM OF SQUARES, MODEL 3 =  121.97337                              P <.05


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  121.97337
                                              DF = 1, 218      F =  39.48395129199103
     SUM OF SQUARES, MODEL 4 =  144.06507
                                                                    P <.01

MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  119.01076
                                              DF = 1, 218        F =  5.603650459840772
     SUM OF SQUARES, MODEL 6 =  122.06991                              P<.025


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  122.06991
                                              DF = 1, 219        F =  43.24087950912719
     SUM OF SQUARES, MODEL 7 =  146.17224                              P <.01
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                  (Model 1 PLOTTED)
   GRADE = 1
   TEST = MATH 1YR
   NUMBER OF CASES =  443

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  81.15861
                                                 DF = 2, 437      F =  3.125551189208386
     SUM OF SQUARES, MODEL 5 =  82.31955
                                                                        p<.05

MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  81.15861
                                                 DF = 1, 437      F =  5.863201698501237
     SUM OF SQUARES, MODEL 2 =  82.24751
                                                                        p<.025

MODEL 2 VS*MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  82.24751
                                                 DF = 1, 438    F =  4.330393467230801
     SUM OF SQUARES, MODEL 3 =  83.06067
                                                                        p <.05

MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  81.15861
                                                 DF = 2, 437      F =  5.120838195725626
     SUM OF SQUARES, MODEL 3 =  83.06067
                                                                        p <.025

MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  83.06067
                                               DF = 1, 439        F =  54.51568594378062
     SUM OF SQUARES, MODEL 4 =  93.37527
                                                                        p <.01

MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  82.31955
                                               DF = 1, 439           F =  4.026268486647458
     SUM OF SQUARES, MODEL 6 =  83.07454
                                                                        p<.05

MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  83.07454
                                               DF = 1, 440           F =  54.60034325799457
     SUM OF SQUARES, MODEL 7 =  93.3834
                                                                        p <.01
```

```
                F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                (Model 3 PLOTTED)

     GRADE = 2
     TEST = MATH 1YR
     NUMBER OF CASES =  342

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  72.15357
                                            DF = 2, 336      F =  .4463712606320115
     SUM OF SQUARES, MODEL 5 =  72.34528


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  72.15357
                                            DF = 1, 336      F =  .8054753215953113
     SUM OF SQUARES, MODEL 2 =  72.32654


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  72.32654
                                            DF = 1, 337    F =  .0[illegible]0827613212231
     SUM OF SQUARES, MODEL 3 =  72.33092


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  72.15357
                                            DF = 2, 336      F =  .4129359087845604
     SUM OF SQUARES, MODEL 3 =  72.33092


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  72.33092
                                            DF = 1, 338      F =  8.710270241274402
     SUM OF SQUARES, MODEL 4 =  74.19489                              p<.01


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  72.34528
                                            DF = 1, 338         F =  .04980394021558682
     SUM OF SQUARES, MODEL 6 =  72.35594


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  72.35594
                                            DF = 1, 339         F =  8.796503507521301
     SUM OF SQUARES, MODEL 7 =  74.23346
                                                                 p <.01
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE
                              (Model 1 PLOTTED)

      GRADE = 3
      TEST = MATH 1YR
      NUMBER OF CASES =  316

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

      SUM OF SQUARES, MODEL 1 =  98.32596
                                                DF = 2, 310      F =  5.068091885398322
      SUM OF SQUARES, MODEL 5 =  101.54096
                                                                     P<.01

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

      SUM OF SQUARES, MODEL 1 =  98.32596
                                                DF = 1, 310      F =  4.060999760388811
      SUM OF SQUARES, MODEL 2 =  99.61403
                                                                     P<.05

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

      SUM OF SQUARES, MODEL 2 =  99.61403
                                                DF = 1, 311    F =  5.462932179332573
      SUM OF SQUARES, MODEL 3 =  101.36382
                                                                   P <.025

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

      SUM OF SQUARES, MODEL 1 =  98.32596
                                                DF = 2, 310      F =  4.788850269043903
      SUM OF SQUARES, MODEL 3 =  101.36382
                                                                    P<.01

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

      SUM OF SQUARES, MODEL 3 =  101.36382
                                               DF = 1, 312       F =  24.86287119013471
      SUM OF SQUARES, MODEL 4 =  109.44137

                                                                    P <.01

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

      SUM OF SQUARES, MODEL 5 =  101.54096
                                               DF = 1, 312         F =  2.912412882446652
      SUM OF SQUARES, MODEL 6 =  102.48881

                                                                       NS

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

      SUM OF SQUARES, MODEL 6 =  102.48881
                                               DF = 1, 313         F =  25.1734142488336
      SUM OF SQUARES, MODEL 7 =  110.7316
                                                                      P<.01
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                 (Models Plotted)
     GRADE = 4
     TEST = MATH 1YR
     NUMBER OF CASES =  210

  MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

       SUM OF SQUARES, MODEL 1 =  58.21002
                                                DF = 2, 204      F =  .07974606433738036
       SUM OF SQUARES, MODEL 5 =  58.25553


  MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

       SUM OF SQUARES, MODEL [illegible] =  58.21002
                                                DF = 1, 204      F =  .03721833457538857
       SUM OF SQUARES, MODEL [illegible] =  58.22064


  MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

       SUM OF SQUARES, MODEL 2 =  58.22064
                                                DF = 1, 205    F =  1.945154673668992
       SUM OF SQUARES, MODEL 3 =  58.77307


  MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

       SUM OF SQUARES, MODEL 1 =  58.21002
                                                DF = 2, 204      F =  .9866187986192062
       SUM OF SQUARES, MODEL 3 =  58.77307


  MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

       SUM OF SQUARES, MODEL 3 =  58.77307
                                                DF = 1, 206      F =  12.73319838490656
       SUM OF SQUARES, MODEL 4 =  62.40593
                                                                     p<.01

  MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

       SUM OF SQUARES, MODEL 5 =  58.25553
                                                DF = 1, 206        F =  4.904915979650338
       SUM OF SQUARES, MODEL 6 =  59.64261
                                                                       p<.05

  MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

       SUM OF SQUARES, MODEL 6 =  59.64261
                                                DF = 1, 207        F =  13.77579552605092
       SUM OF SQUARES, MODEL 7 =  63.61181
                                                                       p<.01
```

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```
                         F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

      GRADE = 5
      TEST = MATH 1YR
      NUMBER OF CASES =  237

   MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

        SUM OF SQUARES, MODEL 1 =  72.99334
                                                 DF = 2, 231      F =  .02076020018173
        SUM OF SQUARES, MODEL 5 =  73.00646


   MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

        SUM OF SQUARES, MODEL 1 =  72.99334
                                                 DF = 1, 231      F =  .03977993060736835
        SUM OF SQUARES, MODEL 2 =  73.00591


   MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

        SUM OF SQUARES, MODEL 2 =  73.00591
                                                 DF = 1, 232    F =  1.281521454906873
        SUM OF SQUARES, MODEL 3 =  73.40918


   MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

        SUM OF SQUARES, MODEL 1 =  72.99334
                                                 DF = 2, 231      F =  .6579986612477266
        SUM OF SQUARES, MODEL 3 =  73.40918


   MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

        SUM OF SQUARES, MODEL 3 =  73.40918
                                                 DF = 1, 233      F =  9.331530470702902D-03
        SUM OF SQUARES, MODEL 4 =  73.41212


   MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

        SUM OF SQUARES, MODEL 5 =  73.00646
                                                 DF = 1, 233        F =  1.6874409470066
        SUM OF SQUARES, MODEL 6 =  73.53519


   MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

        SUM OF SQUARES, MODEL 6 =  73.53519
                                                 DF = 1, 234        F =  .06208374521097314
        SUM OF SQUARES, MODEL 7 =  73.5547
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                 (Model 6 Plotted)
     GRADE = 6
     TEST = MATH 1YR
     NUMBER OF CASES =  229

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  80.72638000000001
                                             DF = 2, 223      F =  1.347659402044288
     SUM OF SQUARES, MODEL 5 =  81.70209


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  80.72638000000001
                                             DF = 1, 223      F =  2.320707307821794
     SUM OF SQUARES, MODEL 2 =  81.56648


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  81.56648
                                             DF = 1, 224    F =  .01661466818232714
     SUM OF SQUARES, MODEL 3 =  81.57253


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  80.72638000000001
                                             DF = 2, 223      F =  1.168709968166537
     SUM OF SQUARES, MODEL 3 =  81.57253


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  81.57253
                                            DF = 1, 225       F =  13.92488071658437
     SUM OF SQUARES, MODEL 4 =  86.62092                              p < .01


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  81.70209
                                            DF = 1, 225         F =  .1457367859255457
     SUM OF SQUARES, MODEL 6 =  81.75501


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  81.75501
                                            DF = 1, 226         F =  15.79677746966211
     SUM OF SQUARES, MODEL 7 =  87.46946
                                                                      p <.01
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                            (Model 2 Plotted)
     GRADE = 1
     TEST = READING 1YR
     NUMBER OF CASES =  415

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  149.7863
                                              DF = 2, 409      F =  2.69515513100998
     SUM OF SQUARES, MODEL 5 =  151.76037


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  149.7863
                                              DF = 1, 409      F =  .2278922705214091
     SUM OF SQUARES, MODEL 2 =  149.86976


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  149.86976
                                              DF = 1, 410    F =  11.42051672065132
     SUM OF SQUARES, MODEL 3 =  154.04437                         p<.01


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  149.7863
                                              DF = 2, 409      F =  5.813450996519713
     SUM OF SQUARES, MODEL 3 =  154.04437                           p<.01


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  154.04437
                                             DF = 1, 411       F =  14.33101722575125
     SUM OF SQUARES, MODEL 4 =  159.41569                           p<.01


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  151.76037
                                             DF = 1, 411          F =  7.636305051180353
     SUM OF SQUARES, MODEL 6 =  154.58005                             p<.01


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  154.58005
                                             DF = 1, 412          F =  14.72077282935282
     SUM OF SQUARES, MODEL 7 =  160.1032                            p<.01
```

```
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                                (Model 3 plotted)
    GRADE = 2
    TEST = READING 1YR
    NUMBER OF CASES =  313

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 =  107.35307
                                            DF = 2, 307      F =  6.012023410229435
    SUM OF SQUARES, MODEL 5 =  111.55769
                                                                 p <.01

MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 =  107.35307
                                            DF = 1, 307      F =  1.46938266413805
    SUM OF SQUARES, MODEL 2 =  107.86689


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 =  107.86689
                                            DF = 1, 308    F =  .5619941392581241
    SUM OF SQUARES, MODEL 3 =  108.06371


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 =  107.35307
                                            DF = 2, 307      F =  1.016116632714832
    SUM OF SQUARES, MODEL 3 =  108.06371


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 =  108.06371
                                           DF = 1, 309       F =  7.06941192376238
    SUM OF SQUARES, MODEL 4 =  110.53603
                                                                  p <.01

MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 =  111.55769
                                           DF = 1, 309         F =  1.692832112246149
    SUM OF SQUARES, MODEL 6 =  112.16885


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 =  112.16885
                                           DF = 1, 310         F =  5.704837840452138
    SUM OF SQUARES, MODEL 7 =  114.23306
                                                                  p<.025
                 F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                            (Model 5  plotted)

     GRADE = 3
     TEST = READING 1YR
     NUMBER OF CASES =  316

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  113.19111
                                              DF = 2, 310     F =  1.177763872092075
     SUM OF SQUARES, MODEL 5 =  114.05119


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  113.19111
                                              DF = 1, 310     F =  1.219118709941091
     SUM OF SQUARES, MODEL 2 =  113.63625


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  113.63625
                                              DF = 1, 311   F =  .5902462462462494
     SUM OF SQUARES, MODEL 3 =  113.85192


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  113.19111
                                              DF = 2, 310     F =  .9048904105631637
     SUM OF SQUARES, MODEL 3 =  113.85192


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  113.85192
                                             DF = 1, 312      F =  2.544106766051896
     SUM OF SQUARES, MODEL 4 =  114.78029


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  114.05119
                                             DF = 1, 312        F =  3.862741283102789
     SUM OF SQUARES, MODEL 6 =  115.46321                                 p<.05


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  115.46321
                                             DF = 1, 313        F =  2.823780059466551
     SUM OF SQUARES, MODEL 7 =  116.50488
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

     GRADE = 4
     TEST = READING 1YR
     NUMBER OF CASES =  194

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  61.94336
                                             DF = 2, 188     F =  1.720923114277301
     SUM OF SQUARES, MODEL 5 =  63.0774


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  61.94336
                                             DF = 1, 188     F =  1.553844673585678
     SUM OF SQUARES, MODEL 2 =  62.45533


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  62.45533
                                             DF = 1, 189   F =  .06814918758735272
     SUM OF SQUARES, MODEL 3 =  62.47785


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  61.94336
                                             DF = 2, 188     F =  .8110967826091461
     SUM OF SQUARES, MODEL 3 =  62.47785


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  62.47785
                                            DF = 1, 190      F =  .7544305701940763
     SUM OF SQUARES, MODEL 4 =  62.72593


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  63.0774
                                            DF = 1, 190        F =  2.983014518670717
     SUM OF SQUARES, MODEL 6 =  64.06772


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  64.06772
                                            DF = 1, 191        F =  1.333857674348328
     SUM OF SQUARES, MODEL 7 =  64.51514
```

```
              F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                            (plotted Model 5)
     GRADE = 5
     TEST = READING 1YR
     NUMBER OF CASES =  238

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  72.08808
                                              DF = 2, 232      F =  1.769236189949849
     SUM OF SQUARES, MODEL 5 =  73.18757


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  72.08808
                                              DF = 1, 232      F =  2.530087082358139
     SUM OF SQUARES, MODEL 2 =  72.87424


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  72.87424
                                              DF = 1, 233    F =  1.043882859018495
     SUM OF SQUARES, MODEL 3 =  73.20073


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  72.08808
                                              DF = 2, 232      F =  1.790412506478187
     SUM OF SQUARES, MODEL 3 =  73.20073


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  73.20073
                                             DF = 1, 234       F =  .025509558166673981
     SUM OF SQUARES, MODEL 4 =  73.20871


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  73.18757
                                             DF = 1, 234         F =  4.174923692643444
     SUM OF SQUARES, MODEL 6 =  74.49335
                                                                        p <.05

MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  74.49335
                                             DF = 1, 235         F =  .6937377631694601
     SUM OF SQUARES, MODEL 7 =  74.71326
```

```
F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
```

(Model 1 plotted)

```
GRADE = 6
TEST = READING 1YR
NUMBER OF CASES =  224

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  75.50181
                                          DF = 2, 218      F =  3.066825550274884
     SUM OF SQUARES, MODEL 5 =  77.62613
```

$p < .05$

```
MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  75.50181
                                          DF = 1, 218      F =  2.116426083030324
     SUM OF SQUARES, MODEL 2 =  76.23481

MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  76.23481
                                          DF = 1, 219    F =  2.834209201806889
     SUM OF SQUARES, MODEL 3 =  77.22141

MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  75.50181
                                          DF = 2, 218      F =  2.482541809262583
     SUM OF SQUARES, MODEL 3 =  77.22141

MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  77.22141
                                         DF = 1, 220       F =  .2867753904001481
     SUM OF SQUARES, MODEL 4 =  77.32207

MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  77.62613
                                         DF = 1, 220         F =  12.25684701787916
     SUM OF SQUARES, MODEL 6 =  81.95091
```

$p < .01$

```
MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  81.95091
                                         DF = 1, 221         F =  7.95893199965687
     SUM OF SQUARES, MODEL 7 =  84.90223
```

$p < .01$

```
              F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

     GRADE = K-2
     TEST = SWPM-LANG
     NUMBER OF CASES = 101

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 = 130.94725
                                          DF = 2, 95     F = .4469628037244003
     SUM OF SQUARES, MODEL 5 = 132.17943


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 = 130.94725
                                          DF = 1, 95     F = .4266928095091743
     SUM OF SQUARES, MODEL 2 = 131.5354


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 = 131.5354
                                          DF = 1, 96   F = .3126495224859598
     SUM OF SQUARES, MODEL 3 = 131.96378


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 = 130.94725
                                          DF = 2, 95     F = .3687376023551466
     SUM OF SQUARES, MODEL 3 = 131.96378


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 = 131.96378
                                         DF = 1, 97      F = 1.622542412774172
     SUM OF SQUARES, MODEL 4 = 134.17117


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 = 132.17943
                                         DF = 1, 97        F = .292204770439697
     SUM OF SQUARES, MODEL 6 = 132.57761


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 = 132.57761
                                         DF = 1, 98        F = 1.636721162796645
     SUM OF SQUARES, MODEL 7 = 134.79182
```

```
              F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

     GRADE = K-2
     TEST = SWPM-MATH
     NUMBER OF CASES = 100

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 = 34.80312
                                          DF = 2, 94      F = .967546013116065
     SUM OF SQUARES, MODEL 5 = 35.51958

MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 = 34.80312
                                          DF = 1, 94      F = 1.918265373909009
     SUM OF SQUARES, MODEL 2 = 35.51335

MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 = 35.51335
                                          DF = 1, 95    F = .08640412689875362
     SUM OF SQUARES, MODEL 3 = 35.54565

MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 = 34.80312
                                          DF = 2, 94      F = 1.002752339445428
     SUM OF SQUARES, MODEL 3 = 35.54565

MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 = 35.54565
                                         DF = 1, 96      F = 2.667533158065758
     SUM OF SQUARES, MODEL 4 = 36.53335

MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 = 35.51958
                                         DF = 1, 96         F = .08491992303963235
     SUM OF SQUARES, MODEL 6 = 35.551

MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 = 35.551
                                         DF = 1, 97         F = 2.692731568732242
     SUM OF SQUARES, MODEL 7 = 36.5379
```

```
                F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE
                              (Model 6 plotted)
                                     (N.S.)
    GRADE = K-2
    TEST = SWPM
    NUMBER OF CASES =  102

MODEL 1 VS MODEL 5--CURVILINEAR VS LINEAR

    SUM OF SQUARES, MODEL 1 =  49.70974
                                              DF = 2, 96      F =  .5031770433721856
    SUM OF SQUARES, MODEL 5 =  50.23084


MODEL 1 VS MODEL 2--COMMON QUADRATIC PORTION

    SUM OF SQUARES, MODEL 1 =  49.70974
                                              DF = 1, 96      F =  .1653696036229539
    SUM OF SQUARES, MODEL 2 =  49.79537


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

    SUM OF SQUARES, MODEL 2 =  49.79537
                                              DF = 1, 97    F =  .9198130267934538
    SUM OF SQUARES, MODEL 3 =  50.26756


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

    SUM OF SQUARES, MODEL 1 =  49.70974
                                              DF = 2, 96      F =  .5386340785528152
    SUM OF SQUARES, MODEL 3 =  50.26756


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

    SUM OF SQUARES, MODEL 3 =  50.26756
                                             DF = 1, 98       F =  2.914934800893461
    SUM OF SQUARES, MODEL 4 =  51.76273                            P <.10       (NS)


MODEL 5 VS MODEL 6--COMMON LINEAR SLOPES

    SUM OF SQUARES, MODEL 5 =  50.23084
                                             DF = 1, 98          F =  .8688940897663549
    SUM OF SQUARES, MODEL 6 =  50.6762


MODEL 6 VS MODEL 7--COMMON LINEAR INTERCEPTS

    SUM OF SQUARES, MODEL 6 =  50.6762
                                             DF = 1, 99          F =  2.927087666399611
    SUM OF SQUARES, MODEL 7 =  52.17452                           P <.10        (NS)
```

F VALUES FOR SPSS REGRESSION RESULTS--TWO GROUP CASE

```
     GRADE = 1-3
     TEST = SWPM
     NUMBER OF CASES =  84

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 =  56.72787
                                          DF = 2, 78     F =  .04910073302593519
     SUM OF SQUARES, MODEL 5 =  56.79929


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 =  56.72787
                                          DF = 1, 78     F =  .01468484538552309
     SUM OF SQUARES, MODEL 2 =  56.73855


MODEL 2 VS MODEL 3--PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 =  56.73855
                                          DF = 1, 79   F =  .5347325583752131
     SUM OF SQUARES, MODEL 3 =  57.1226


MODEL 1 VS MODEL 3--PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 =  56.72787
                                          DF = 2, 78     F =  .271374017744717
     SUM OF SQUARES, MODEL 3 =  57.1226


MODEL3 VS MODEL 4--EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 =  57.1226
                                         DF = 1, 80      F =  1.482649599282945
     SUM OF SQUARES, MODEL 4 =  57.18126


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 =  56.79929
                                         DF = 1, 80        F =  .4746819898629025
     SUM OF SQUARES, MODEL 6 =  57.13631


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 =  57.13631
                                         DF = 1, 81        F =  1.521080902844444
     SUM OF SQUARES, MODEL 7 =  58.20926
```

```
                    F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE
```

(Model 4 plotted)

```
  GRADE = 1-3
  TEST = SWPM-LANG
  NUMBER OF CASES =  83

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

  SUM OF SQUARES, MODEL 1 =  87.01667
                                         DF = 2, 77      F =  .7690782122551924
  SUM OF SQUARES, MODEL 5 =  88.75492


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

  SUM OF SQUARES, MODEL 1 =  87.01667
                                         DF = 1, 77      F =  1.143655692639124
  SUM OF SQUARES, MODEL 2 =  88.3091


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

  SUM OF SQUARES, MODEL 2 =  88.3091
                                         DF = 1, 78    F =  .3121709993647309
  SUM OF SQUARES, MODEL 3 =  88.66253


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

  SUM OF SQUARES, MODEL 1 =  87.01667
                                         DF = 2, 77      F =  .7282008148553608
  SUM OF SQUARES, MODEL 3 =  88.66253


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

  SUM OF SQUARES, MODEL 3 =  88.66253
                                        DF = 1, 79       F =  6.732949533472595
  SUM OF SQUARES, MODEL 4 =  96.21899


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

  SUM OF SQUARES, MODEL 5 =  88.75492
                                        DF = 1, 79         F =  .1912628618221961
  SUM OF SQUARES, MODEL 6 =  88.9698


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

  SUM OF SQUARES, MODEL 6 =  88.9698
                                        DF = 1, 80         F =  6.956400936047961
  SUM OF SQUARES, MODEL 7 =  96.70617
```

p <.01

```
                    F VALUES FOR SPSS REGRESSION RESULTS—TWO GROUP CASE

     GRADE = 1-3
     TEST = SWPM-MATH
     NUMBER OF CASES = 77

MODEL 1 VS MODEL 5—CURVILINEAR VS LINEAR

     SUM OF SQUARES, MODEL 1 = 44.57242
                                          DF = 2, 71       F = .5162313376747331
     SUM OF SQUARES, MODEL 5 = 45.22058


MODEL 1 VS MODEL 2—COMMON QUADRATIC PORTION

     SUM OF SQUARES, MODEL 1 = 44.57242
                                          DF = 1, 71       F = .8418865298316781
     SUM OF SQUARES, MODEL 2 = 45.10094


MODEL 2 VS MODEL 3—PARALLEL CURVILINEAR SLOPES

     SUM OF SQUARES, MODEL 2 = 45.10094
                                          DF = 1, 72    F = .4339386274432431
     SUM OF SQUARES, MODEL 3 = 45.37276


MODEL 1 VS MODEL 3—PARALLEL LINEAR SLOPES

     SUM OF SQUARES, MODEL 1 = 44.57242
                                          DF = 2, 71       F = .6374361095942306
     SUM OF SQUARES, MODEL 3 = 45.37276


MODEL3 VS MODEL 4—EQUAL QUADRATIC INTERCEPTS

     SUM OF SQUARES, MODEL 3 = 45.37276
                                         DF = 1, 73        F = .1359355260733514
     SUM OF SQUARES, MODEL 4 = 45.45725


MODEL 5 VS MODEL 6—COMMON LINEAR SLOPES

     SUM OF SQUARES, MODEL 5 = 45.22058
                                         DF = 1, 73          F = .4511510024860361
     SUM OF SQUARES, MODEL 6 = 45.50005


MODEL 6 VS MODEL 7—COMMON LINEAR INTERCEPTS

     SUM OF SQUARES, MODEL 6 = 45.50005
                                         DF = 1, 74          F = .1105770213439326
     SUM OF SQUARES, MODEL 7 = 45.56804
```

GRADE K - LANGUAGE

(Two Program Comparisons)

Models Compared	SS Error	F	Prob
1	148.8573	1.4147	.2351
2	149.7974		
1	148.8573	1.6968	.1858
5	151.1125		
2	149.7974	1.4679	.2275
3	150.7747		
1	148.8573	1.4426	.2387
3	150.7747		
3	150.7747	.0025	.9597
4	150.7764		
5	151.1125	.0049	.9442
6	151.1158		
6	151.1158	.0058	.9393
7	151.1196		

GRADE 1 - READING

(Three Program Comparisons)

Models Compared	SS Error	F	Prob
1	179.6342	1.2892	.2765
2	180.6073		
1	179.6342	2.0542	.1050
5	181.9598		
2	180.6073	1.7429	.1762
3	181.9244		
1	179.6342	1.5171	.1962
3	181.9244		
3	181.9244	.5739	.5637
4	182.3594		
5	181.9598	2.4034	.0913
6	183.7858		
6	183.7858	.6338	.5310
7	184.2702		

GRADE 2 - READING

(Three Program Comparisons)

Models Compared	SS Error	F	Prob
1	90.6641	.9211	.3994
2	91.2303		
1	90.6641	.6370	.5921
5	91.2514		
2	91.2303	1.5207	.2203
3	92.1645		
1	90.6641	1.2205	.3023
3	92.1645		
3	92.1645	1.0521	.3505
4	92.8131		
5	91.2514	1.6857	.1871
6	92.2837		
6	92.2837	1.0288	.3586
7	92.9167		

GRADE 3 - READING

(Three Program Comparisons)

Models Compared	SS Error	F	Prob
1	98.5679	.7394	.4784
2	99.0903		
1	98.5679	.4961	.6855
5	99.0937		
2	99.0903	.0817	.9216
3	99.1479		
1	98.5679	.4104	.8012
3	99.1479		
3	99.1479	2.7198	.0673
4	101.0537		
5	99.0937	.1186	.8883
6	99.1771		
6	99.1771	2.8534	.0596*
7	101.1700		

*(Plotted Model 6 - almost significant at .05 level.)

GRADE 4 - READING

(Three Group Comparisons)

Models Compared	SS Error	F	Prob
1	86.1079	1.4934	.2266
2	87.1884		
1	86.1079	1.1470	.3302
5	87.3528		
2	87.1884	.5655	.5689
3	87.5993		
1	86.1079	1.0306	.3921
3	87.5993		
3	87.5993	.4892	.6137
4	87.9535		
5	87.3528	1.8852	.1542
6	88.7194		
6	88.7194	.0364	.9643
7	88.7460		

GRADE 5 - READING

(Three Program Comparisons)

Models Compared	SS Error	F	Prob
1	106.9811	1.7846	.1698
2	108.2289		
1	106.9811	2.4444	.0636
5	109.5449		
2	108.2289	2.3312	.0988
3	109.8672		
1	106.9811	2.0638	.0855
3	109.8672		
3	109.8672	5.1415	.0066
4	113.5117		
5	109.5449	4.5754	.0112 *
6	112.7890		
6	112.7890	4.9250	.0079
7	116.3612		

*(Model 5 plotted.)

GRADE 6 - READING

(Three Program Comparisons)

Models Compared	SS Error	F	Prob
1	92.3734	.5951	.5523
2	92.8097		
1	92.3734	1.8654	.1353
5	94.4248		
2	92.8097	1.1775	.3097
3	93.6702		
1	92.3734	.8844	.4738
3	93.6702		
3	93.6702	2.9779	.0527
4	95.8495		
5	94.4248	1.6226	.1994
6	95.6264		
6	95.6264	4.0213	.0193*
7	98.6189		

*(Model 6 plotted.)

82.37

ECIA Chapter 1

Appendix C

CHAPTER 1 SERVICE REPORTS

Instrument Description: Chapter 1 Service Report

Brief description of the instrument: Three types of Service Reports were used:

- K-6 Chapter 1 students (except Allison and Becker) were counted through a computer-generated roster on which Chapter 1 schools were asked in the fall to indicate which students were served by Chapter 1 and whether the student was served in the classroom, lab, or both. In the spring, corrections to that roster were collected.
- Nonpublic schools were surveyed (as part of the low-income survey of nonpublic schools) in the fall. Pretest achievement test scores were collected at that time. These survey reports were then updated in the spring.
- N & D institutions were surveyed in the fall (as part of the low-income survey) and again in the spring. The spring service report included information on student progress.

Prekindergarten students were counted at the time of PPVT-R testing in the fall and spring.

To whom was the instrument administered?
Each Chapter 1 school or institution: 24 AISD schools (not counting Allison and Becker, who were counted using Student Masterfile Records), 3 nonpublic schools, and 4 N & D institutions.

How many times was the instrument administered?
Twice.

When was the instrument administered?
In November and May.

Where was the instrument administered?
Report forms were mailed to each school, where they were completed and returned.

Who administered the instrument?
The reports were completed by various school staff members — usually the secretary or Chapter 1 contact person.

What training did the administrators have?
Written instructions for completing the reports were provided.

Was the instrument administered under standardized conditions?
No.

Were there problems with the instrument or the administration that might affect the validity of the data?
The personnel completing the forms were often employed by the program being evaluated. Subjective ratings were asked for on the N & D service report.

Who developed the instrument?
ORE staff members developed all three instruments.

What reliability and validity data are available on the instrument?
None.

Are there norm data available for interpreting the results?
No, although data from previous years are available for comparisons.

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CHAPTER 1 SERVICE REPORTS

Purpose

Information from three service reports--the AISD Chapter 1 Service Report, the Chapter 1 Service Report for nonpublic schools and the Chapter 1 Service Report for N & D institutions--was used to answer the following decision and evaluation questions from the Chapter 1 Evaluation Design for 1982-83.

Decision Question D1: Should the Chapter 1 Reading Improvement Program be modified? If so, how?

Evaluation Question D1-2: How many students were served at each grade in the following ways:

a) in the classroom only;
b) in the reading center or lab only; and
c) in both the classroom and reading lab?

Decision Question D4: Should the N & D and non-public school Chapter 1 components be modified? If so, how?

Evaluation Question D4-2: How many students are served by Chapter 1 in:

a) non-public schools, and
b) N & D institutions?

Summary By Component

Prekindergarten

Data on the number of students enrolled in the Chapter 1 prekindergarten program are shown in Figure C-1. These data were collected from the PPVT-R testing (see Appendix A), but the test forms were supplemented by information from the student attendance data collected by the instructional coordinator for the program. This additional information indicated that there was one student at Sims who entered the program after the fall PPVT-R testing and withdrew prior to the PPVT-R spring testing. This student was added to the counts of students served, and is included in the totals in Figure C-1 below.

School	Students Served
Blackshear	16
Brown	20
Campbell	16
Maplewood	8*
Norman	16
Pecan Springs	17
Ortega	8*
Rosewood	17
Sims	17
TOTAL	135

*One-half of these two classes was served by the Migrant Program. The teacher was split-funded.

Figure C-1. NUMBER OF CHAPTER 1 PREKINDERGARTEN STUDENTS AT EACH CAMPUS.

Nonpublic Schools.

Information concerning students served by Chapter 1 in the three participating nonpublic schools was obtained in the fall, and updated in the spring. Forms and correspondence sent to these schools are contained in Attachment C-1. In addition to information about which students were served by the Chapter 1 program, pre- and posttest percentile scores were obtained on students who were served.

As shown in Figure C-2, 75 students were served in reading and 65 students were served in math, across grades K-6. However, some students were served in *both* reading and math, with a total of 91 individuals that were actually served. The number of students served by each school is shown in Figure C-3. Figure C-4 summarizes the achievement gains of students in reading and math by grade level. Percentile scores were converted to NCE's for this table. These figures are difficult to interpret because of the small "N's" at each grade, but are contained in Figure C-4.

	Number of Students Served In	
	Reading	Math
St. Mary's	46	38
St. Austin's	11	9
St. Ignatius'	18	17
Total	75	64

Figure C-2. NUMBER OF STUDENTS SERVED BY THE NONPUBLIC SCHOOL COMPONENT IN READING AND MATH, BY CAMPUS. (DUPLICATED COUNT.)

	Number
St. Mary's	49
St. Austin's	18
St. Ignatius'	24
	91

Figure C-3. UNDUPLICATED COUNT OF STUDENTS SERVED BY CHAPTER 1 AT EACH CAMPUS.

N & D Institutions.

As shown in Figure C-5, a total of 57 students were served by the N & D component. This number is larger than the number for the previous year, when 44 students were reported as being served. Part of the reason for this increase is that Spectrum/Turning Point was able to serve five students in 1982-83 with materials purchased with Chapter 1 funds. In 1981-82, funds

	$\bar{X}$ NCE - Reading			$\bar{X}$ NCE - Math		
Grade	Pretest	Posttest	Gain	Pretest	Posttest	Gain
K	4.88 (S.D.=9.87)	51.92 (S.D.=17.44)	47.04 (S.D.=15.14) N=14	13.46 (S.D.=13.38)	35.70 (S.D.=11.61)	22.24 (S.D.=10.12) N=13
1	27.35 (S.D.=10.09)	45.17 (S.D.=11.86)	17.82 (S.D.=15.91) N=13	21.75 (S.D.=11.29)	44.21 (S.D.=21.75)	22.46 (S.D.=23.29) N=10
2	30.19 (S.D.=8.62)	40.74 (S.D.=11.57)	10.55 (S.D.=9.74) N=10	28.57 (S.D.=8.95)	54.73 (S.D.=15.28)	26.17 (S.D.=17.17) N=6
3	33.00 (S.D.=3.49)	33.58 (S.D.=4.58)	.58 (S.D.=6.44) N=11	29.73 (S.D.=6.55)	37.70 (S.D.=10.75)	7.97 (S.D.=10.84) N=10
4	27.38 (S.D.=11.89)	29.22 (S.D.=17.40)	1.83 (S.D.=7.96) N=6	68.46 (S.D.=96.25)	29.82 (S.D.=10.22)	-38.64 (S.D.=93.00) N=5
5	28.68 (S.D.=10.35)	33.83 (S.D.=14.59)	5.15 (S.D.=7.66) N=13	31.17 (S.D.=7.11)	44.80 (S.D.=14.49)	13.63 (S.D.=17.27) N=12
6	31.50 (S.D.=7.48)	14.63 (S.D.=5.17)	-16.87 (S.D.=7.05) N=3	31.18 (S.D.=5.90)	34.63 (S.D.=11.87)	3.45 (S.D.=10.78) N=4

Figure C-4. NCE GAINS FOR NONPUBLIC SCHOOL CHAPTER 1 STUDENTS IN READING AND MATH.

appropriated for that institution were not expended before the end of the school year.

Subjective progress ratings, made by administrators or staff members familiar with the students, were also obtained. (The forms and correspondence concerning students served by the N & D component are contained in Attachment C-2. Information collected in the fall with one form was updated and expanded in the spring.) The summary of these ratings is contained in Figure C-6. The most frequent response was that students made "some progress," while the second most frequent response is that students made "much progress." In the absence of a control or comparison group, it is difficult to tell whether the progress was due to Chapter 1 participation. However, administrators of the institutions felt the program was helpful (see also Appendix G.)

Institution	Number Served
Settlement Club Home	11
Junior Helping Hand Home	21
Salado House	20
Spectrum/Turning Point	5
	57

Figure C-5. NUMBER OF STUDENTS SERVED BY THE N & D COMPONENT AT EACH INSTITUTION.

Rating	Frequency
No Progress	4
Little Progress	11
Some Progress	20
Much Progress	15
Very Much Progress	7
	57

Figure C-6. SUMMARY OF STAFF RATINGS MADE CONCERNING STUDENT PROGRESS WHILE SERVED BY CHAPTER 1.

(continued on next page)

One concern to be addressed by the more extensive evaluation of the N & D component conducted in 1982-83 was the amount of turnover in the student populations served by the various institutions. Figure C-7 below indicates that there is a wide variation in the length of time students remain in the institutions, with some students remaining for an extended period, while others remain only a short time.

Number of Days	Number of Students
0-30	2
31-60	16
61-90	11
91-120	4
121-150	13
151+	11
	57

Figure C-7. NUMBER OF N & D STUDENTS SERVED FOR DIFFERENT LENGTHS OF TIME (NUMBER OF WEEKDAYS BETWEEN "STARTING" AND "ENDING" DAYS OF SERVICE).

Regular Chapter 1 Reading Improvement Program.

Information on which students were served by the regular Chapter 1 program was collected with the Fall Service Report (see Attachment C-3). This information was updated with the Spring Service Report (Attachment C-4). Data on the number of students served at each school are presented in Figures C-8 to C-9. (Data are also presented for each grade level.)

Information concerning the location in which Chapter 1 service was given (lab, classroom, or both) was also collected with the Service Reports. However, the distinction between locations or settings may not have always been easy for school staff to make--if students are served at a table right outside the door of their regular classroom, is this a "lab" or "pullout" setting? How does it differ from a setting in which that same table is moved inside the door? Nevertheless, summary data on the location of service are presented in Figures C-10 to C-13 for comparison to previous years. Figures C-14 and C-15 summarize the data for the year as a whole.

SCHOOL		K	01	02	03	04	05	06	TOTAL
						GRADE			
101	ALLISON	90	118	88	99	0	0	0	395
102	ANDREWS	38	39	7	16	20	22	25	167
104	BECKER	97	138	117	97	97	84	78	708
105	BLACKSHEAR	24	1	0	0	30	44	34	133
108	BROOKE	1	0	0	0	29	27	19	76
109	BROWN	28	27	17	16	13	7	13	121
110	BRYKER WOODS	3	19	5	14	0	0	0	41
111	CAMPBELL	35	1	0	0	27	47	27	137
112	CASIS	0	39	32	22	0	0	0	93
114	DAWSON	0	43	23	36	24	43	39	208
116	GOVALLE	42	99	49	36	0	0	0	226
122	MAPLEWOOD	18	19	20	14	14	13	18	116
124	METZ	8	49	35	40	0	0	0	132
125	OAK SPRINGS	0	93	29	53	0	0	0	175
126	ORTEGA	0	0	0	0	18	13	15	46
127	SANCHEZ	0	54	33	30	0	0	0	117
129	PECAN SPRINGS	0	39	22	13	0	0	0	74
133	RIDGETOP	0	8	8	7	7	7	6	43
134	ROSEDALE	0	0	0	0	13	15	15	43
135	ROSEWOOD	35	31	16	9	0	0	0	91
139	SIMS	33	31	11	13	0	0	0	88
141	WALNUT CREEK	10	0	0	0	13	33	29	85
142	ALLAN	0	82	46	45	0	0	0	173
145	ZAVALA	27	1	0	0	11	21	18	78
150	NORMAN	1	47	16	29	0	0	0	93
152	WOOLDRIDGE	0	0	0	0	35	57	27	119
157	WINN	0	38	28	27	38	0	0	131
	TOTALS	490	1016	602	616	389	433	363	3909

Figure C-8. NUMBER OF CHAPTER 1 STUDENTS SERVED BY SCHOOL
SERVED IN FALL 1982-83

SCHOOL		GRADE K	01	02	03	04	05	06	TOTAL
101	ALLISON	97	129	95	106	0	0	0	427
102	ANDREWS	40	34	8	14	23	24	24	167
104	BECKER	108	148	130	105	98	90	81	760
105	BLACKSHEAR	22	1	0	0	34	42	37	136
108	BROOKE	1	0	0	0	31	27	21	80
109	BROWN	30	28	17	16	11	5	13	120
110	BRYKER WOODS	3	18	4	12	0	0	0	37
111	CAMPBELL	33	3	0	0	24	48	28	136
112	CASIS	0	37	34	22	0	0	0	93
114	DAWSON	0	43	25	35	25	43	42	213
116	GOVALLE	49	100	47	36	0	0	0	232
122	MAPLEWOOD	21	20	21	16	16	12	21	127
124	METZ	8	54	41	38	0	0	0	141
125	OAK SPRINGS	0	94	28	55	0	0	0	177
126	ORTEGA	0	0	0	0	19	16	15	50
127	SANCHEZ	0	57	34	29	0	0	0	120
129	PECAN SPRINGS	0	48	19	12	0	0	0	79
133	RIDGETOP	0	8	7	9	7	8	6	45
134	ROSEDALE	0	0	0	0	16	14	17	47
135	ROSEWOOD	41	33	17	10	0	0	0	101
139	SIMS	35	30	12	14	0	0	0	91
141	WALNUT CREEK	10	0	0	0	13	36	30	89
142	ALLAN	0	82	46	42	0	0	0	170
145	ZAVALA	30	0	0	0	11	21	21	83
150	NORMAN	1	52	23	29	0	0	0	105
152	WOOLDRIDGE	0	0	0	0	43	58	32	133
157	WINN	0	41	29	27	38	0	0	135
	TOTALS	529	1060	637	627	409	444	388	4094

Figure C-9. NUMBER OF CHAPTER 1 STUDENTS SERVED BY SCHOOL SERVED IN SPRING 1982-83

SCHOOL		LOCATION LAB	 CLASS	 BOTH	 TOTAL
101	ALLISON	0	395	0	395
102	ANDREWS	28	134	5	167
104	BECKER	0	708	0	708
105	BLACKSHEAR	101	0	32	133
108	BROOKE	2	74	0	76
109	BROWN	3	118	0	121
110	BRYKER WOODS	41	0	0	41
111	CAMPBELL	55	69	13	137
112	CASIS	93	0	0	93
114	DAWSON	16	190	2	208
116	GOVALLE	201	16	9	226
122	MAPLEWOOD	83	25	8	116
124	METZ	132	0	0	132
125	OAK SPRINGS	84	91	0	175
126	ORTEGA	0	0	46	46
127	SANCHEZ	0	116	1	117
129	PECAN SPRINGS	74	0	0	74
133	RIDGETOP	42	1	0	43
134	ROSEDALE	43	0	0	43
135	ROSEWOOD	89	0	2	91
139	SIMS	8	36	44	88
141	WALNUT CREEK	44	41	0	85
142	ALLAN	168	0	5	173
145	ZAVALA	43	35	0	78
150	NORMAN	93	0	0	93
152	WOOLDRIDGE	23	54	42	119
157	WINN	93	0	38	131
	TOTALS	1559	2103	247	3909

Figure C-10. NUMBER OF CHAPTER 1 STUDENTS SERVED BY SCHOOL, LOCATION SERVED IN FALL 1982-83

			LOCATION		
	SCHOOL	LAB	CLASS	BOTH	TOTAL
101	ALLISON	0	427	0	427
102	ANDREWS	34	133	0	167
104	BECKER	0	760	0	760
105	BLACKSHEAR	104	0	32	136
108	BROOKE	1	79	0	80
109	BROWN	10	110	0	120
110	BRYKER WOODS	37	0	0	37
111	CAMPBELL	55	69	12	136
112	CASIS	93	0	0	93
114	DAWSON	16	197	0	213
116	GOVALLE	125	80	27	232
122	MAPLEWOOD	92	32	3	127
124	METZ	141	0	0	141
125	OAK SPRINGS	112	65	0	177
126	ORTEGA	0	0	50	50
127	SANCHEZ	0	120	0	120
129	PECAN SPRINGS	79	0	0	79
133	RIDGETOP	45	0	0	45
134	ROSEDALE	47	0	0	47
135	ROSEWOOD	8	76	17	101
139	SIMS	7	35	49	91
141	WALNUT CREEK	45	12	32	89
142	ALLAN	159	4	7	170
145	ZAVALA	46	37	0	83
150	NORMAN	105	0	0	105
152	WOOLDRIDGE	32	55	46	133
157	WINN	94	0	41	135
	TOTALS	1487	2291	316	4094

Figure C-11. NUMBER OF CHAPTER 1 STUDENTS SERVED BY SCHOOL, LOCATION SERVED IN SPRING 1982-83

*** ALL CHAPTER 1 SCHOOLS ***

GRADE	LAB	CLASS	BOTH	TOTAL
K	126	293	71	490
1	470	495	51	1016
2	298	304	0	602
3	266	338	12	616
4	136	225	28	389
5	146	253	34	433
6	117	195	51	363
TOTAL	1559	2103	247	3909

Figure C-12. NUMBER OF CHAPTER 1 STUDENTS SERVED BY LOCATION, GRADE SERVED IN FALL 1982-83

*** ALL CHAPTER 1 SCHOOLS ***

GRADE	LAB	CLASS	BOTH	TOTAL
K	100	346	83	529
1	396	591	73	1060
2	288	344	5	637
3	278	340	9	627
4	146	239	24	409
5	152	225	67	444
6	127	206	55	388
TOTAL	1487	2291	316	4094

Figure C-13. NUMBER OF CHAPTER 1 STUDENTS SERVED BY LOCATION, GRADE SERVED IN SPRING 1982-83

*** ALL CHAPTER 1 SCHOOLS ***

GRADE	SWP ALL YEAR	REG CH1 LAB ALL YEAR	REG CH1 CLASS ALL YEAR	REG CH1 LAB & CLASS ALL YEAR	SERVED DIFFERENT FALL & SPR	SERVED ONLY FALL OR SPR	TOTAL
K	187	91	100	68	33	61	540
1	255	335	198	48	131	157	1124
2	207	258	93	0	18	99	675
3	196	246	112	5	35	63	657
4	97	130	122	19	10	44	422
5	84	141	128	29	38	41	461
6	78	113	112	49	6	37	395
TOTAL	1104	1314	865	218	271	502	4274

Figure C-14. NUMBER OF CHAPTER 1 STUDENTS SERVED BY GRADE SERVED IN 1982-83

Grade	Fall	Spring	Fall or Spring or Both
K	490	529	540
1	1016	1060	1124
2	602	637	675
3	616	627	657
4	389	409	422
5	433	444	461
6	363	388	395
	3909	4094	4274

Figure C-15. NUMBER OF CHAPTER 1 STUDENTS SERVED BY GRADE FOR FALL AND SPRING

Attachment C-1
(Page 1 of 5)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

December 9, 1982

TO: Nonpublic School Principals and Directors

FROM: Karen Carsrud, Chapter 1 Evaluator Karen Carsrud

SUBJECT: Enrollment Information on Students at Your School

Each year, our office is charged with collecting two types of information that we must report to the Texas Education Agency.

- Information on the grade level of each student in your school, and whether or not the student would be considered "low income." *(Names are not necessary for this portion of the form, unless the students receive ECIA Chapter 1 service.)* This information is used to determine the concentration of students actually residing in various parts of Austin.

- Additional information on any students who receive ECIA Chapter 1 service.

The form is easy to fill out, and instructions are attached. We appreciate any information you can provide us. Please call me at 458-1227 if you have any questions.

Approved: Freda Holley sc
Director of Office of Research and Evaluation

KC:sc
Attachment

cc: Allie Langdon

Attachment C-1
(Page 2 of 5)

What is the attached printout?	The printout lists students that we believe are in your school.
What do I need to do with the printout?	• If the information on the printout is correct, check the names of students whose family income would qualify them as "low-income." Then return the printout to the address shown below. *(See attached criteria.)* • If a student on the printout is not attending your school, draw a line through the student's name. • For students at your school who do not appear on the printout, please indicate their name or a code number (of your own choice - just keep a list), grade level, and *address* on the extra pages provided.
What about students receiving Chapter 1 service?	Indicate the subjects in which they receive Chapter 1 service, and the pretest/selection test score that was used to qualify them (a percentile score in reading or math.) In the spring, we will ask you to update their information with a post-test score.
After correcting the printout, who do I send it to?	Send the printout to: Karen Carsrud Austin Independent School District 6100 Guadalupe Austin, Texas 78752
Why is the information needed?	To determine the number of school-age children residing in various areas of Austin. Names of the children are not used in any reports—only the number, grade level, and general area of residence.

DON'T FORGET THE ADDRESS OF STUDENTS YOU MUST ADD TO THE PRINTOUT.

FOR USE BY SCHOOL PERSONNEL ONLY. These guidelines should be used by the school to determine eligibility for free or reduced-price meals.

Either Category is considered "low-income."

FREE ELIGIBILITY INCOME SCALE
1982-1983 School Year

Family Size	Family Size	Annual Income	Prorated Monthly	Prorated Weekly
( )	1	$0 - 6,080	$0 - 507	$0 - 117
( )	2	0 - 8,090	0 - 674	0 - 156
( )	3	0 - 10,090	0 - 841	0 - 194
( )	4	0 - 12,090	0 - 1,008	0 - 233
( )	5	0 - 14,090	0 - 1,174	0 - 271
( )	6	0 - 16,090	0 - 1,341	0 - 309
( )	7	0 - 18,100	0 - 1,508	0 - 348
( )	8	0 - 20,100	0 - 1,675	0 - 387
Each Additional Family Member		1,790	149	34

REDUCED PRICE ELIGIBILITY INCOME SCALE

1982-1983 School Year

Family Size	Family Size	Annual Income	Prorated Monthly	Prorated Weekly
( )	1	$ 6,080 - 8,660	$ 507 - 722	$117 - 167
( )	2	,090 - 11,510	674 - 959	156 - 221
( )	3	10,090 - 14,360	841 - 1,197	194 - 276
( )	4	12,090 - 17,210	1,008 - 1,434	233 - 331
( )	5	14,090 - 20,050	1,174 - 1,671	271 - 386
( )	6	16,090 - 22,900	1,341 - 1,908	309 - 440
( )	7	18,100 - 25,750	1,508 - 2,146	348 - 495
( )	8	20,100 - 28,600	1,675 - 2,383	387 - 550
Each Additional Family Member		2,850	238	55

82.37

LOW-INCOME SURVEY

SCHOOL: ST. IGNATIUS

FALL, 1982

FILL IN OR CORRECT THIS INFORMATION FOR ALL STUDENTS IN YOUR SCHOOL				FILL IN THIS INFORMATION ONLY FOR STUDENTS SERVED BY CHAPTER 1.					
NAME*	I.D.# (IF KNOWN)	GRADE	CHECK IF LOW INCOME	CHECK AREAS OF CH.1 SERVICE		ENTER SELECTION TEST SCORE		ENTER** POST-TEST SCORE	
				READING	MATH	READING	MATH	READING	MATH

*CODE OR I.D. # CAN BE USED FOR STUDENTS NOT SERVED BY CHAPTER 1.

**TO BE FILLED IN IN SPRING, 1983.

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Attachment C-1
(Page 4 of 5)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

May 12, 1983

TO: Principals of Nonpublic Chapter 1 Schools

FROM: Karen Carsrud, Chapter 1 Evaluator

SUBJECT: Chapter 1 Spring Service Report

Last fall, your school completed a form containing information on students who were served by the Chapter 1 program. We now need to have posttest scores on these Chapter 1 students, and are returning the form to you so that you may add this information.

In addition, if you have any other students in your school who are served by Chapter 1, but who are not on the original form, please add their names and pre/posttest scores to the form. (If possible, use a different color ink or pencil lead when adding either posttest scores or new students to the form.)

Please call me at 458-1227 if you have any questions, or if we can assist you in this process.

KC:sc

Approved: Freda Holley
Director of Office of Research and Evaluation

cc: Allie Langdon
Lee Laws
Ambrosio Melendrez
Sister Loretta Raphael
Chapter 1 Teachers

Attachment C-2
(Page 1 of 6)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

November 22, 1982

TO: Superintendents of N & D Institutions

FROM: Karen Carsrud, Chapter 1 Evaluator Karen Carsrud

SUBJECT: Low-Income and Chapter 1 Service Report for N & D Institutions

As you may know, our office is charged with reporting certain information to the Texas Education Agency regarding the Chapter 1 programs in institutions for neglected and/or delinquent children. Specifically, we need to know which students received Chapter 1 Services, and also information about any students at your institution who do not attend public schools.

Please complete the enclosed report and return it to ORE by December 6th. If you have any questions or need additional materials, please call me at (458-1229).

Thank you.

Approved: Freda Holley
Director of Office of Research and Evaluation

KC:sc

cc: Lee Laws
Ambrosio Melendrez
Allie Langdon

FOR USE BY SCHOOL PERSONNEL ONLY. These guidelines should be used by the school to determine eligibility for free or reduced-price meals.

FREE ELIGIBILITY INCOME SCALE
1982-1983 School Year

Family Size	Family Size	Annual Income	Prorated Monthly	Prorated Weekly
( )	1	$0 - 6,080	$0 - 507	$0 - 117
( )	2	0 - 8,090	0 - 674	0 - 156
( )	3	0 - 10,090	0 - 841	0 - 194
( )	4	0 - 12,090	0 - 1,008	0 - 233
( )	5	0 - 14,090	0 - 1,174	0 - 271
( )	6	0 - 16,090	0 - 1,341	0 - 309
( )	7	0 - 18,100	0 - 1,508	0 - 348
( )	8	0 - 20,100	0 - 1,675	0 - 387
Each Additional Family Member		1,790	149	34

REDUCED PRICE ELIGIBILITY INCOME SCALE

1982-1983 School Year

Family Size	Family Size	Annual Income	Prorated Monthly	Prorated Weekly
( )	1	$ 6,080 - 8,660	$ 507 - 722	$117 - 167
( )	2	,090 - 11,510	674 - 959	156 - 221
( )	3	10,090 - 14,360	841 - 1,197	194 - 276
( )	4	12,090 - 17,210	1,008 - 1,434	233 - 331
( )	5	14,090 - 20,050	1,174 - 1,671	271 - 386
( )	6	16,090 - 22,900	1,341 - 1,908	309 - 440
( )	7	18,100 - 25,750	1,508 - 2,146	348 - 495
( )	8	20,100 - 28,600	1,675 - 2,383	387 - 550
Each Additional Family Member		2,850	238	55

Name of Institution: ____________________

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

(Part I)

Chapter 1 Service Report for N & D Institutions (1982-83)

Names of Students Receiving Chapter 1 Services	First Date for Chapter 1 Services	Last Date for Chapter 1 Services*

*If known.

Attachment C-2
(Page 3 of 6)

Name of Institution: ______________________

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

(Part II)

Low-Income Survey

Grade Levels

A. Number of students in your institution who DO NOT attend public school (by grade level).	B. Number of students in Column A whose family income would qualify them for free or reduced-price lunch.*
K	K
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12

*See attached chart for income levels that qualify.

Attachment C-3
(Page 4 of 6)

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Attachment C-2
(Page 5 of 6)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

April 29, 1983

TO: Directors of N & D Institutions

Karen Carsrud PS

FROM: Karen Carsrud, Perry Sailor

SUBJECT: Students served by the Chapter 1 Program.

This year, the Texas Education Agency is requiring a more extensive evaluation of the N & D component of Chapter 1 than in the past. Thus, we have modified the annual service report somewhat to allow for collecting this additional information.

Please have the appropriate person in your institution complete and return the enclosed form to us at the time you cease providing Chapter 1 services to your students. Normally, this would be no later than the end of school in May, 1983. In fact, some students who received services may have already left your institution or are no longer served and information on the last date of Chapter 1 service for such students should reflect the actual dates.

From the interview we conducted earlier this year, we do realize that some of the information on test scores may not be available for all students. However, for any students where you have information, we would appreciate your including it on the form, along with any explanatory comments you feel would be helpful.

If you have any questions, please call Karen Carsrud or Perry Sailor at 458-1227. Your time and effort are appreciated.

KC:sc
Enclosure

Approved: Freda M Holley
Director of Office of Research and Evaluation

cc: Allie Langdon
Lee Laws
Ambrosio Melendrez

DIRECTIONS: FOR EACH STUDENT SERVED BY CHAPTER 1 DURING THE 1982-83 SCHOOL YEAR, PLEASE FILL IN THE INFORMATION REQUESTED IN COLUMNS 1 - 5 AND 8. WHEN AVAILABLE, PLEASE SUPPLY TEST SCORE INFORMATION IN COLUMNS 6 - 7c.

COLUMN 1 - NAME
COLUMN 2 - GRADE (IF AVAILABLE)
COLUMN 3 - FIRST DATE OF CHAPTER 1 SERVICE.
COLUMN 4 - LAST DATE OF CHAPTER 1 SERVICE.
COLUMN 5 - USE THE SCALE OPPOSITE THE DIRECTIONS (SELECTING THE NUMBER YOU THINK APPROPRIATE) TO RATE THE STUDENT'S OVERALL EDUCATIONAL PROGESS WHILE SERVED BY CHAPTER 1. ENTER NUMBER IN COLUMN 5.
COLUMN 6 - NAME OF STANDARDIZED ACHIEVEMENT TEST USED TO SELECT STUDENT FOR CHAPTER 1 SERVICE.
COLUMN 6A - DATE TEST ADMINISTERED
COLUMN 6B - PERCENTILE SCORE
COLUMN 6C - IF PERCENTILE SCORE NOT AVAILABLE, LIST SCORE(S) YOU HAVE.
COLUMN 7 - NAME OF POSTTEST (IF ANY) FOR 82-83 SCHOOL YEAR.
COLUMN 7A - DATE TEST ADMINISTERED
COLUMN 7B - PERCENTILE SCORE
COLUMN 7C - OTHER SCORE (IF PERCENTILE NOT AVAILABLE).
COLUMN 8 - COMMENTS

SCALE

1 = NO PROGRESS
2 = LITTLE PROGRESS
3 = SOME PROGRESS
4 = MUCH PROGRESS
5 = VERY MUCH PROGRESS

(1) NAME	(2) GR.	(3) DATE	(4) DATE	(5) PROG.	(6) TEST NAME	(6A) DATE	(6B) %ILE	(6C) OTHER	(7) TEST NAME	(7A) DATE	(7B) %ILE	(7C) OTHER	(8) COMMENTS

Attachment C-3
(Page 1 of 3)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

November 11, 1982

TO: Principals of Chapter 1 Schools

Karen Carsrud

FROM: Karen Carsrud, Chapter 1 Evaluator

SUBJECT: Chapter 1 Service Report

Attached is the Chapter 1 Service Report for Fall, 1982 along with a set of instructions for completing it. It is the first of two Chapter 1 Service Reports for the 1982-83 school year. There are two major steps to completing the form:

a. updating the roster so that it reflects current enrollment.

b. adding the Chapter 1 information.

I suggest that the updating be done by someone at the school office who has access to current class rosters. It represents a task all elementary schools will be asked to complete eventually.

The Chapter 1 teachers should add the Chapter 1 information next. Please pass the report to ____________________________, your school's Chapter 1 contact person, who will see that the form is completed with the Chapter 1 information and returned to ORE by December 10th. If you have any questions about the report, please call me at (458-1229).

Approved: Freda M Holley
Director of Office of Research and Evaluation

Approved: Ruth MacAllister
Assistant Superintendent of Elementary Education

KC:sc

cc: Lee Laws
Ambrosio Melendrez
Timy Baranoff
Hermelinda Rodriguez
Chapter 1 Coordinators
Chapter 1 Contact Persons

INSTRUCTIONS FOR COMPLETING THE CHAPTER 1 SERVICE REPORT

The instructions below are rather detailed, but *please read them carefully.* They were written in detail in an attempt to anticipate problems that might arise. It is important that the instructions be followed so that the results are accurate and comparable across campuses.

STEP 1: Updating the Roster

In order for the information to be useful, it is important that you:

- add the name and ID number for any unlisted students who currently attend your school, and who are receiving Chapter 1 services. You do not need to add names of students who are not receiving Chapter 1 services.

Spaces have been left between grades for adding names of these students. Use the instructions below for adding students and updating information.

- Student Name: Use the student's official name; do not use nicknames.
- ID#: Add the student's AISD identification number.

If a student listed on the report no longer attends your school, mark a "W" for "Withdrawn" beside the student's name.

STEP 2: Adding Chapter 1 Service Information

The information requested in this section is needed for the Chapter 1 evaluation. It is important that the information be provided for each student to be served by Chapter 1 this year. The instructions that follow describe how to record the Chapter 1 information.

"Check If Served by Chapter 1": Place a check in this column to show which students are being served by Chapter 1 and also a check to indicate where he/she was served. Multiple checks should be made if the student was served in more than one place.

All students being served as of November 16 should be checked, regardless of the length of service. If you have students who will begin service by Chapter 1 after November 16 but before December 1, you may include them if you know the location(s) of service.

For example, the services for the students described below are coded on the sample form following.

Student 1: He is seen by a Chapter 1 teacher in his classroom.

Student 2: She is seen by the Chapter 1 teacher in the classroom in the morning. In addition, she is seen by the Chapter 1 teacher in the reading center or lab twice each week.

	Check If Served By Chapter 1	Check If Served In: Lab	Class
Student 1	✓	—	✓
Student 2	✓	✓	✓

Return to ORE

When the report has been updated and completed, send it to the following address:

Sarah Conway, O.R.E.
Administration Building, Box 79

(Sample)

AUSTIN INDEPENDENT SCHOOL DISTRICT
OFFICE OF RESEARCH AND EVALUATION

CHAPTER 1 SERVICE REPORT

FALL, 1982

SCHOOL: ANDREWS

GRADE: K

MARK W IF WITHDRAWN	STUDENT NAME	STUDENT ID	GRADE	CHECK IF SERVED BY CHAPTER 1	CHECK IF SERVED IN:*	
					LAB	CLASS

---						

* CHECK BOTH IF APPLICABLE

Attachment C-3
(Page 3 of 3)

82.37

Attachment C-4
(Page 1 of 3)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

April 26, 1983

TO: Chapter 1 Contact Persons

FROM: Karen Carsrud, Chapter 1 Evaluator Karen Carsrud

SUBJECT: Chapter 1 Service Report for Spring, 1983

In order to know which children are being served by the Chapter 1 program, we must verify and update the information collected on the Fall, 1982 Chapter 1 Service Report. Hopefully, this process will be fast and easy for you, because nothing will need to be done for students with correct information.

Enclosed is a printout of students at your school, according to the Student Masterfile. The printout also indicates the information we have about each student's Chapter 1 service.

Please read the enclosed instructions, complete the report, and return it to me May 6, 1983. If you have any questions, call Karen Carsrud or John Hugg at 458-1227. Thank you for your help.

Approved: Freda Holley
Director of Office of Research and Evaluation

Approved: Ruth MacAllister
Assistant Superintendent of Elementary Education

KC:sc

cc: Timy Baranoff
Lee Laws
Ambrosio Melendrez
Alicia Martinez
Ann Neeley
Kathryn Stone
Principals of Chapter 1 Schools

INSTRUCTIONS FOR THE SPRING, 1983 CHAPTER 1 SERVICE REPORT
(SEE ALSO ATTACHED SAMPLE REPORT)

1) For students with totally correct information, do nothing! No additional information is requested.

2) For Chapter 1 students who have withdrawn entirely from the school place a "W" under "Not Served."

3) For students who are still at your school, but who (contrary to our records) are not receiving Chapter 1 service, place a check ("✓") in the column under "Not Served." Do this *only* for students we list incorrectly as being served.

4) If the information about where the child is served (class, lab, or both class and lab) is incorrect, please show the *correct* information in the two right-hand columns on the printout.

   IMPORTANT: The information you check in the three right-hand columns will replace the previous information. For students with incorrect information, the complete correct information should be placed in these columns. (See examples on the sample attached.)

5) Add to the printout only those Chapter 1 students who are receiving Chapter 1 service, but who are not listed on the printout. Non-Chapter 1 students who are not on the list do not need to be added.

6) If you need a copy of the completed printout for your records, please write "COPY" in the top right-hand corner of the first page of the printout, and we well send you a copy. (The carbon paper was so messy and hard to read that this approach should be easier.)

7) Send the completed report to:

   Karen Carsrud
   Office of Research and Evaluation

8) Please return them by May 6, 1983. Call Karen Carsrud or John Hugg if you have any questions.

AUSTIN INDEPENDENT SCHOOL DISTRICT
OFFICE OF RESEARCH AND EVALUATION

Chapter 1 Service Report

SPRING, 1983

SCHOOL:

GRADE:

Problem:	STUDENT NAME	STUDENT ID#	GRADE	OUR RECORDS SHOW TITLE I SERVICE IN:	CORRECTIONS (IF ANY) NOT SERVED	CHECK IF SERVED IN:* LAB	CLASS
Student has withdrawn.	Student 1	0000000	K	Lab	W		
Student is not Chapter 1.	Student 2 (actually not served	0000000	K	Class	✓		
Information on location of service is incorrect.	Student 3 (actually served in both class & lab)	0000000	K	Class		✓	✓
	Student 4 (Served in class, not lab)	0000000	K	Lab			✓
No problems; information is correct.	Student 5	0000000	K				
	Student 6	0000000	K	Lab			

* CHECK BOTH IF APPLICABLE

ECIA Chapter 1

Appendix D

PARENT SURVEY

Instrument Description: Parent Survey

Brief description of the instrument:

The Parent Survey is a seven-item survey in English and Spanish. It was designed to assess parents' preferences among different ways of involvement in their children's education. Each item described a way in which parents could be involved, and asked parents to circle one of four responses corresponding to their level of interest.

To whom was the instrument administered?

The survey was mailed to parents of 400 randomly chosen Chapter 1 students, with the restriction that parents who had participated in other ORE surveys were not selected.

How many times was the instrument administered?

Once. A second form was sent to parents who failed to respond to the first one.

When was the instrument administered?

May 1983.

Where was the instrument administered?

The survey was mailed to the home address of the students in the sample.

Who administered the instrument?

It was self-administered. Either parent (or guardian) could fill it out.

What training did the administrators have?

None.

Was the instrument administered under standardized conditions?

No.

Were there problems with the instrument or the administration that might affect the validity of the data?

Parents who chose to complete and return the survey may differ in their pattern of interests from those who did not respond.

Who developed the instrument?

ORE Chapter 1 Staff, with review and suggestions by other AISD personnel.

What reliability and validity data are available on the instrument?

None.

Are there norm data available for interpreting the results?

No.

PARENT SURVEY

Purpose

The Parent Survey was intended to help answer, the following questions:

> Decision Question D5: Can improvement be made in the ways the Chapter 1 program encourages parental involvement in their children's education?
>
> > Evaluation Question D5-1: Are there alternate methods of participation that parents would prefer to those currently offered (Rainbow Kits, District-wide PAC's)?

Another evaluation question, focusing on more specific issues about Rainbow Kits, was originally to be addressed by this Parent Survey. However, a separate Rainbow Kit Questionnaire (Appendix H) was conducted to address this question instead.

Procedures

After reviewing results of previous Parent Surveys and meeting with the Parental Involvement Specialist, Lickert-type items for the Parent Survey were generated to assess how interested parents might be in a variety of activities, *including* Rainbow Kits and PAC meetings. Thus, parents' interest in a particular activity could be examined separately, and also relative to other activities. (A survey requiring ordinal ranking of most- to least-preferred activity might also have been confusing to fill out.)

In order to draw the sample for the Parent Survey, a list of all Chapter 1 students was first obtained. Then, parents of students who were already included in the Parent Survey samples of the District Priorities and Chapter 2 evaluation staff were eliminated from possible names in the Chapter 1 sample. Parents whose children were receiving Chapter 1 Rainbow Kit Questionnaires were not eliminated from this sample because almost all the Chapter 1 students at three schools would have been eliminated and it was felt that this would distort the sample too much. A "random" sample of 400 students was then drawn from the list of Chapter 1 students remaining, with the provision that only one child per family was chosen. Thus, the final sample was somewhat of a modified random sample.

In late April, the surveys, stamped-return envelopes, and cover letters were mailed, using the bulk mailing procedure. Copies of the survey and cover letter, which included a Spanish version as well as an English one, are contained in Attachment D-1. An identification number for each student in the sample was placed under the stamp of the return envelope of each survey, so that follow-up letters could be mailed to those parents who did not respond. In late May, the follow-up letters were mailed. A copy of the cover letter is included in Attachment D-2.

Analyses and Results

Of the original 400 surveys mailed, two were not able to be delivered due to the student's address being incorrect on the Family File. A total of 117 surveys were returned, although not all of those were completely filled out. Of the 398 surveys that were deliverable, this represents a return rate of 29.4 percent (which is slightly higher than that for the 1981-82 Parent Survey.) This return rate is relatively low, however, and results should be interpreted with caution.

Analyses consisted of calculating frequencies of each response for each item, and also calculating mean and median levels of interest for each item. Missing data are reported but were not included in the calculation of means shown in Figures D-1 to D-7. (The data are stored on permanent file A020; control cards are on file PSCCF, and data are stored on file PARENT.)

The results indicate that all the activities were of some interest to parents, with item means ranging from 1.351 to 2.229 (a value of "1" indicates the greatest interest and a "4" indicates no interest.) The most preferred activities, in order from greatest to least interest, are:

	Mean	Median
Math Rainbow Kits	1.351	1.212
Reading Rainbow Kits	1.372	1.234
Attending workshops to learn to help their child	1.759	1.684
Helping with school events	2.000	1.915
PAC Meetings	2.045	1.992
Working with children at school	2.161	2.096
Helping teachers at school	2.229	2.149

It is clear that parents like activities that directly involve them in the process of educating their child. If Rainbow Kits prove to be prohibitively expensive in the future, similar but less expensive alternatives might be considered. (Appendix H further indicates that parents find these activities to be valuable.)

```
ITEM1     HELPING TEACHERS AT SCHOOL

                                                RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                  CODE    FREQ     (PCT)     (PCT)     (PCT)

VERY INTERESTED                  1.      24      20.5      22.0      22.0

INTERESTED                       2.      47      40.2      43.1      65.1

NOT VERY INTERESTED              3.      27      23.1      24.8      89.9

NOT AT ALL INTERESTE             4.      11       9.4      10.1     100.0

                               BLANK      8       6.8    MISSING
                                       ------    ------    ------
                               TOTAL    117     100.0     100.0

MEAN           2.229      MEDIAN          2.149        MODE            2.000

VALID CASES      109      MISSING CASES       8
```

Figure D1: RESPONSES TO ITEM 1.

```
ITEM2     WORKING WITH CHILDREN AT SCHOOL

                                                RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                  CODE    FREQ     (PCT)     (PCT)     (PCT)

VERY INTERESTE[illegible]        1.      28      23.9      25.0      25.0

INTERESTED                       2.      47      40.2      42.0      67.0

NOT VERY INTERESTED              3.      28      23.9      25.0      92.0

NOT AT ALL INTERESTE             4.       9       7.7       8.0     100.0

                               BLANK      5       4.3    MISSING
                                       ------    ------    ------
                               TOTAL    117     100.0     100.0

MEAN           2.161      MEDIAN          2.096        MODE            2.000

VALID CASES      112      MISSING CASES       5
```

Figure D2: RESPONSES TO ITEM 2.

```
ITEM3     MATH RAINBOW KITS

                                                    RELATIVE  ADJUSTED    CU
                                          ABSOLUTE    FREQ      FREQ      FRE
CATEGCRY LABEL                    CODE      FREQ      (PCT)     (PCT)     (PC

VERY INTERESTED                     1.       80       68.4      70.2      70.

INTERESTED                          2.       29       24.8      25.4      95.

NOT VERY INTERESTED                 3.        4        3.4       3.5      99.

NOT AT ALL INTERESTE                4.        1         .9        .9     100.

                                 BLANK        3        2.6    MISSING
                                          ------     ------    ------
                                 TOTAL      117      100.0     100.0


MEAN            1.351     MEDIAN          1.212      MODE              1.0

VALID CASES      114      MISSING CASES      3
```

Figure D3: RESPONSES TO ITEM 3,

```
ITEM4     READING RAINBOW KITS

                                                    RELATIVE  ADJUSTED    C
                                          ABSOLUTE    FREQ      FREQ      FRE
CATEGCRY LABEL                    CODE      FREQ      (PCT)     (PCT)     (P

VERY INTERESTED                     1.       77       65.8      68.1      68.

INTERESTED                          2.       31       26.5      27.4      95

NOT VERY INTERESTED                 3.        4        3.4       3.5      99.

NOT AT ALL INTERESTE                4.        1         .9        .9     100

                                 BLANK        4        3.4    MISSING
                                          ------     ------    ------
                                 TOTAL      117      100.0     100.0


MEAN            1.372     MEDIAN          1.234      MODE              1.0

VALID CASES      113      MISSING CASES      4
```

Figure D4: RESPONSES TO ITEM 4.

82.37

```
ITEM5     ATTENDING WORKSHOPS

                                                      RELATIVE   ADJUSTED     CUM
                                          ABSOLUTE      FREQ       FREQ       FREQ
CATEGORY LABEL                    CODE      FREQ       (PCT)      (PCT)      (PCT)

VERY INTERESTED                    1.        47         40.2       42.0       42.0

INTERESTED                         2.        49         41.9       43.8       85.7

NOT VERY INTERESTED                3.        12         10.3       10.7       96.4

NOT AT ALL INTERESTE               4.         4          3.4        3.6      100.0

                                BLANK         5          4.3     MISSING
                                          ------      ------     ------
                                TOTAL       117       100.0      100.0

MEAN            1.759      MEDIAN         1.684        MODE               2.000

VALID CASES      112       MISSING CASES      5
```

Figure D5: RESPONSES TO ITEM 5.

```
ITEM6     PAC MEETINGS

                                                      RELATIVE   ADJUSTED     CUM
                                          ABSOLUTE      FREQ       FREQ       FREQ
CATEGORY LABEL                    CODE      FREQ       (PCT)      (PCT)      (PCT)

VERY INTERESTED                    1.        25         21.4       22.3       22.3

INTERESTED                         2.        63         53.8       56.3       78.6

NOT VERY INTERESTED                3.        18         15.4       16.1       94.6

NOT AT ALL INTERESTE               4.         6          5.1        5.4      100.0

                                BLANK         5          4.3     MISSING
                                          ------      ------     ------
                                TOTAL       117       100.0      100.0

MEAN            2.045      MEDIAN         1.992        MODE               2.000

VALID CASES      112       MISSING CASES      5
```

Figure D6: RESPONSES TO ITEM 6.

82.37

```
ITEM7     HELPING WITH SCHOOL EVENTS

                                                RELATIVE  ADJUSTED     CU
                                     ABSOLUTE    FREQ      FREQ       FRE
CATEGORY LABEL               CODE      FREQ      (PCT)     (PCT)     (PCT

VERY INTERESTED          .     1.        34      29.1      30.4      30.

INTERESTED                     2.        53      45.3      47.3      77.

NOT VERY INTERESTED            3.        16      13.7      14.3      92.

NOT AT ALL INTERESTE           4.         9       7.7       8.0     100.

                            BLANK         5       4.3    MISSING
                                     ------    ------    ------
                            TOTAL       117     100.0     100.0


MEAN           2.000     MEDIAN         1.915      MODE            2.00

VALID CASES      112     MISSING CASES      5
```

Figure D7: RESPONSES TO ITEM 7.

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

April 26, 1983

Dear Parents:

We are interested in finding out the ways in which parents prefer to be involved with their children's education. Your answers to this questionnaire will help in the School District to set up programs to help parents participate in Austin schools.

It should only take a few minutes to answer the enclosed questionnaire. To make returning it as easy as possible, we are enclosing a stamped, self-addressed envelope. Please return your completed questionnaire as soon as possible. Your answers are very important to us.

If you have any questions, please call Perry Sailor or Wanda Washington at 458-1227. Thank you very much for your time.

Sincerely,

Freda Holley

Freda M. Holley, Ph.D.
Director, Office of Research and Evaluation

FMH:PS:sc
Enclosure

6100 GUADALUPE, AUSTIN, TEXAS 78752 512 / 458-1227

82.37

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

Attachment D-1
(Page 2 of 4)

Parent Survey

There are many ways in which parents can be involved in their children's education. For example, this year Reading and Math Rainbow Kits and Parent Advisory Council meetings are in use in some schools.

To help us plan next year's activities, we would like to know how interested parents would be in various kinds of activities. For each activity listed below, please circle the response that shows how interested in it you would be if it were available next year.

1. Helping teachers at school (preparing materials, decorating room, etc.).

very interested	interested	not very interested	not at all interested

2. Working with children at school.

very interested	interested	not very interested	not at all interested

3. Using Math Rainbow Kits. (Rainbow Kits are take-home activities, with all materials provided, on which parents and children work together).

very interested	interested	not very interested	not at all interested

4. Using Reading Rainbow Kits.

very interested	interested	not very interested	not at all interested

5. Going to workshops to learn how to help my child with reading and math, how to make up learning games, etc.

very interested	interested	not very interested	not at all interested

6. Going to Parent Advisory Council meetings.

very interested	interested	not very interested	not at all interested

7. Helping with school events (carnivals, plays, trips, etc.).

very interested	interested	not very interested	not at all interested

Please return this survey in the enclosed envelope. Thank you for your help.

26 de Abril de 1983

Padres de familia:

Estamos interesados en saber como los padres de familia quieren involucrarse en la educación de sus niños. Sus respuestas a este cuestionario le ayudarán al Distrito Escolar a establecer programas que puedan aumentar la participación de padres en las escuelas de Austin.

Le llevará solamente unos minutos contestar este cuestionario. Por favor contestelo y mándelo lo antes posible. Incluímos un sobre rotulado con estampilla para ayudarle a regresarlo. Sus respuestas son muy importantes.

Si usted tiene preguntas, por favor llame a Belinda Olivárez Turner al 458-1227.

Sinceramente,

Freda M. Holley, Ph.D.
Directora de Evaluación e Investigación

FMH:PG:sc
Ajunto

Oficina de Investigación y Evaluación

Cuestionario Para Los Padres

Hay muchas maneras en que los padres se pueden involucrar en la educación de sus niños. Por ejemplo, este año, las juntas del Consejo de Padres de Familia y los "Rainbow Kits" de lectura y matemáticas se están usando en algunas escuelas.

Para ayudarnos a planear las actividades del año que viene queremos saber que tan interesados estan los padres en varias clases de actividades. Para cada actividad, encierre en un círculo la respuesta que indique que tan interesado estaría usted si ofrecieran esa actividad el año entrante.

1. Ayudar a las maestras en la escuela (preparar materiales, decorar el cuarto, etc.).

muy interesado	interesado	no muy interesado	no estoy de ninguna manera interesado

2. Trabajar con niños en la escuela.

muy interesado	interesado	no muy interesado	no estoy de ninguna manera interesado

3. Usar Rainbow Kits de Matemática (Rainbow Kits son actividades que se llevan a casa en las cuales los padres y niños trabajan juntos.)

muy interesado	interesado	no muy interesado	no estoy de ninguna manera interesado

4. Usar "Rainbow Kits" de lectura.

muy interesado	interesado	no muy interesado	no estoy de ninguna manera interesado

5. Ir a clases de entrenamiento para aprender como ayudar a mi niño a leer y con matemáticas, como hacer juegos de aprendizaje, etc.

muy interesado	interesado	no muy interesado	no estoy de ninguna manera interesado

6. Ir a las juntas del Consejo de Padres de Familia.

muy interesado	interesado	no muy interesado	no estoy de ninguna manera interesado

7. Ayudar con eventos escolares (carnavales, piezas dramaticas, viajes, etc.).

muy interesado	interesado	no muy interesado	no estoy de ninguna manera interesado

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Por favor regrese este cuestionario en el sobre incluído. Gracias por

Attachment D-2
(Page 1 of 2)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

May 20, 1983

Dear Parents:

A short time ago we sent you a questionnaire to find out how parents would like to be involved with their children's education and with the Chapter 1 and Migrant programs in AISD.

If you have not sent your questionnaire in yet, we would still like you to do so. Enclosed is another copy of the questionnaire, along with a return envelope for your convenience. *Of course, if you have sent it in already, you do not have to send another!*

If you have any questions, please call Wanda Washington at 458-1227.

Your answers are very important to us.

Thank you for your time.

Sincerely,

Freda Holley

Freda M. Holley, Ph.D.
Director, Research and Evaluation

FMH:ww
Enclosure

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6100 GUADALUPE, AUSTIN, TEXAS 78752 512 / 458-1227

Attachment D-2
(Page 2 of 2)

19 de mayo de 1983

Padres de familia:

Hace poco tiempo que les envíamos un cuestionario para enterarnos como los padres de familia quieren estar involucrados en la educación de sus niños y con los programas del Capítulo 1/Migrante en el Distrito Escolar de Austin.

Si usted no ha mandado su cuestionario todavía, nos gustaría que lo hiciera. Incluído está otra copia del cuestionario junto con un sobre rotulado con estampilla para que los regrese. *Naturalmente, si usted ya lo regresó, no es necesario que usted envíe otro.*

Si acaso usted tiene preguntas, por favor llame a Belinda Olivárez Turner al teléfono 458-1228.

Sus respuestas son muy importante para nosotros.

Muchas gracias por su tiempo.

Sinceramente,

Freda M. Holley, Ph.D.
Directora, Oficina de Evaluación

ECIA Chapter 1

Appendix E

PREKINDERGARTEN LONGITUDINAL FILE

File Description: Prekindergarten Longitudinal File

Brief description of the data file:

This file contains information on students who were at one time in a District prekindergarten program (beginning in 1978-79). Scores from the prekindergarten year, as well as available scores from subsequent years, are included on the file, with information on student ethnicity and later participation in Migrant and Chapter 1/ Title I programs.

Which students or other individuals are included on the file?

Any student who participated in an AISD prekindergarten class during the past 5 years. The programs included are Title I/Chapter 1, Migrant, Happy Talk, At-Home, and Title VII.

How often is information on the file added, deleted, or updated?

The file was created in 1981-1982, but is now updated yearly.

Who is responsible for changing or adding information to the file?

The Chapter 1 or Chapter 1 Migrant evaluation staff.

How was the information contained on the file gathered?

The file was merged with the various achievement test files, prekindergarten program files, and program service files.

Are there problems with the information on the file that may affect the validity of the data?

It is sometimes difficult to find student ID numbers for some students on the file. Often, this occurs when a pre-k student did not attend school in AISD subsequent to prekindergarten. However, in some cases, achievement data might be omitted from a student's record merely because no ID number could be found. For the earlier years of prekindergarten, records for students who were missing either a pre- or posttest score were not available.

What data are available concerning the accuracy and reliability of the information on the file?

The reliability of the achievement test information can be found in technical reports for each year a test was given.

Are there normative or historical data available for interpreting the results?

Yes. This file itself is a historical record. There are national norms available for all of the tests, as well as districtwide data for AISD students who took the tests.

Brief description of the file layout:

The file contains student information (ID, name, birthday, ethnicity), and a code to indicate which pre-k program a student attended. The year a student attended pre-k, and his or her pre-k pre- and posttest scores (if available) are included. Spring (and fall) achievement test scores for years subsequent to the prekindergarten year are also included. (Migrant and Title I/Chapter 1 status for subsequent years is also included.)

PREKINDERGARTEN LONGITUDINAL FILE

Purpose

The prekindergarten longitudinal file was created to provide information relevant to the following decision and evaluation questions:

Chapter 1 Regular

Decision Question D3: Should the Chapter 1 Early Childhood Education Program be continued, modified, or discontinued?

> Evaluation Question D3-2: Do former E.C.* students score higher than comparable students in their schools when they reach higher grade levels?
>
> *Pre-Kindergarten

Chapter 1 Migrant

Decision Question D1: Should the Early Childhood Education component be continued as it is, modified, or deleted?

> Evaluation Question D1-4: What have been the long-term effects of participation in Migrant Early Childhood Education component on migrant students' achievement?

Procedure

The following is a list of prekindergarten programs that were included on the file at the time of this report:

4 years of Title I (78-79, 79-80, 80-81, 81-82)
4 years of Migrant (78-79, 79-80, 80-81, 81-82)
3 years of Happy Talk (78-79, 79-80, 80-81)
1 year of At-Home (80-81)
2 years of Title VII (80-81, 81-82)

The individual files from various programs had been previously combined into one large longitudinal file (called PREKL). The student ID number, name, program type, program year, pre- and posttest scores were also moved from the individual prekindergarten data files to PREKL. Student Masterfile information (from years subsequent to the pre-k year) was also added with "current school, " birthday, and ethnicity. Systemwide Testing files were used to update each record (see Figure E-1.)

Year/Test

Grade	78-79	78-80	80-81	81-82	82-83
EC	x	x	x	x	x
K		Boehm/Boehm	Boehm/Boehm	ITBS/ITBS	ITBS/ITBS
1			MRT/ITBS	MRT/ITBS	ITBS
2				ITBS	ITBS
3					ITBS

Figure E-1. SUMMARY OF TEST SCORE INFORMATION CONTAINED ON PREKL FOR EACH COHORT OF PRE-K STUDENTS.

Analyses

For students who had participated in an AISD prekindergarten program, the pre-k longtudinal file (PREKL) was used to calculate their median percentiles for the spring of 1983. For the comparison group, students who resided in traditional Title I areas, attended Chapter 1 schools, and who had no AISD prekindergarten program were chosen. The Districtwide medians were obtained from Systemwide Testing reports.

Results

Figure E-2 shows the medians for each cohort of pre-k students as the students reach higher levels. Figure E-3 graphically depicts the scores of the 1978-79 pre-k cohort, and tentatively suggests, that long-term benefits to the students may be re-emerging as they reach higher grade levels.

			AISD Pre-K Program			
Pre-K Year	Test Date	Test	Title I	Migrant	None	Whole District
1978-79	Fall, 1979	BTBC	50 (N=28)	30 (N=12)	N/A	50
	Fall, 1980	MRT	30 (N=53)	36 (N=83)	N/A	51
	Spring, 1981	ITBS (R.T.)	38 (N=45)	41 (N=76)	47 (N=735)	63
	Spring, 1982	ITBS (R.T.)	38 (N=47)	40 (N=76)	38 (N=916)	62
	Spring, 1983	ITBS (R.T.)	44 (N=60)	49 (N=76)	40.0 (N=913)	59
1979-80	Fall, 1980	BTBC	40 (N=79)	30 (N=92)	N/A	N/A
	Fall, 1981	MRT	43 (N=76)	36 (N=75)	42 (N=862)	55
	Spring, 1982	ITBS (R.T.)	50 (N=72)	47 (N=73)	41 (N=972)	62
	Spring, 1983	ITBS (R.T.)	46 (N=74)	42 (N=85)	40 (N=926)	63
1980-81	Fall, 1981	ITBS (L.T.)	23 (N=112)	18 (N=161)	17 (N=647)	29
	Spring, 1982	ITBS (L.T.)	26 (N=126)	26 (N=178)	26 (N=817)	50
	Spring, 1983	ITBS (R.T.)	46 (N=111)	42 (N=96)	47 (N=908)	62
1981-82	Fall, 1982	ITBS (L.T.)	28 (N=92)	29 (N=68)	23 (N=700)	42
	Spring, 1983	ITBS (L.T.)	31 (N=95)	26 (N=85)	26 (N=890)	52

Figure E-2. MEDIAN PERCENTILES FOR COHORTS OF PREKINDERGARTEN STUDENTS AS THEY REACH HIGHER GRADE LEVELS.

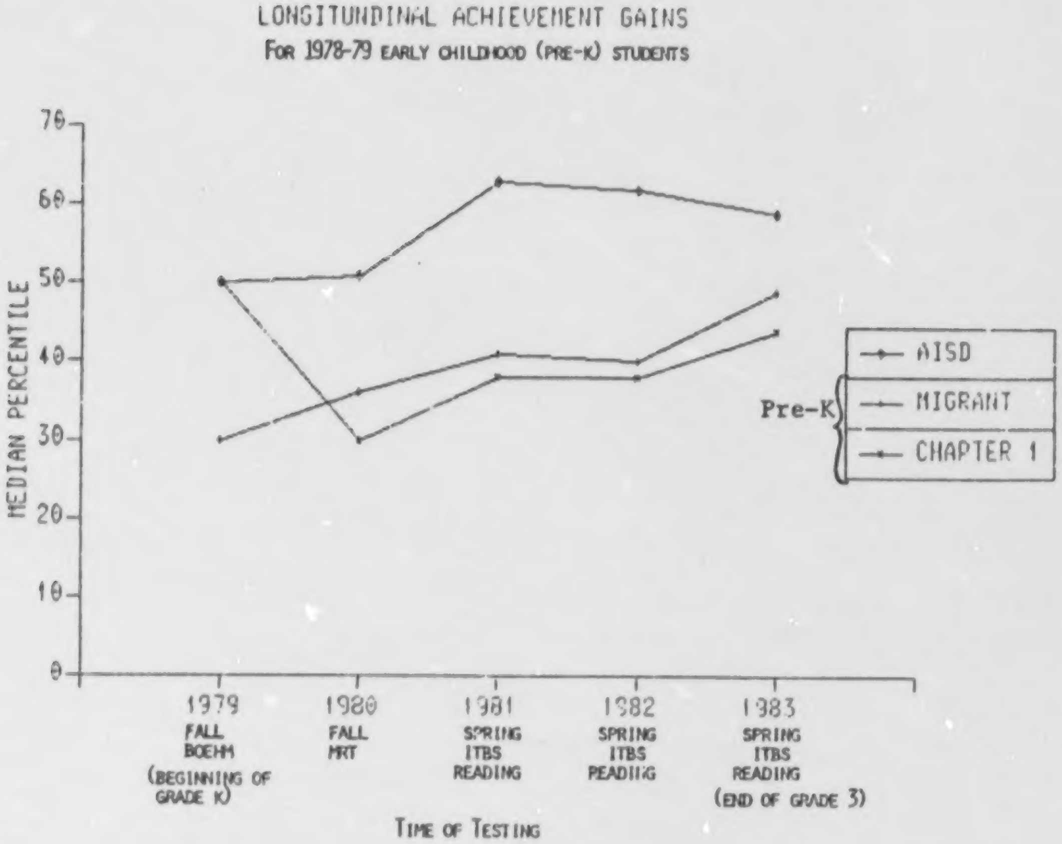

Figure E-3. MEDIAN PERCENTILE FOR FORMER EARLY CHILDHOOD (PRE-K) STUDENTS AS THEY REACH HIGHER GRADE LEVELS.

Retention/Promotion

Appendix F

COORDINATOR/TEACHER STUDY

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Instrument Description: Coordinator/Teacher Study

Brief description of the instrument:

The coordinator/teacher study was designed to focus attention on retainees and former pre-k students in first-grade classrooms. Nine primary instructional coordinators were given randomly chosen teachers to work with (usually five teachers each.) Coordinators were interviewed at the end of the school year to see what they had done and to obtain ideas on possible future interventions for these students. The form used to guide the interviews included six questions.

To whom was the instrument administered?

Eleven primary instructional coordinators.

How many times was the instrument administered?

Once.

When was the instrument administered?

May 1983.

Where was the instrument administered?

In ORE or instructional coordinator offices.

Who administered the instrument?

Two ORE evaluators and the Director of ORE.

What training did the administrators have?

Administrators discussed the survey questions and the study prior to interviews.

Was the instrument administered under standardized conditions?

No.

Were there problems with the instrument or the administration that might affect the validity of the data?

None that are known.

Who developed the instrument?

ORE evaluator.

What reliability and validity data are available on the instrument?

Not available.

Are there norm data available for interpreting the results?

No.

COORDINATOR/TEACHER STUDY

Purpose

The coordinator/teacher study supplied information relevant to the following retention decision and evaluation questions:

> Decision Question D2: How effective have efforts been directed towards retainees? Should they be continued and/or modified?
>
> > Evaluation Question D2-10: Does focusing special attention on retainees have an impact on their achievement?
> >
> > Evaluation Question D2-11: If so, what methods seem most effective in meeting the needs of the retained child?

This study was motivated by a desire to see whether having coordinators focus special attention on retainees and former pre-k students in first-grade classrooms could have an impact on student achievement. These groups have special needs - - pre-k students often make gains which do not seem to be maintained in kindergarten and first-grade and students are most often retained at the first-grade level.

Procedure

Development

The Director of ORE suggested the study in October 1982 to the Director of Elementary Curriculum. She liked the idea and invited the Director, evaluators for the retention and Chapter 1 evaluations to meet with the coordinators at their first November meeting to discuss the proposal. The ORE Director and evaluator for retention met with the coordinators November 4. The discussion guide for the meeting is included as Attachment F-1. Decisions made at the meeting were that:

- Primary coordinators were willing to participate.
- ORE would determine how many classrooms included pre-k and retained students and randomly assign each primary coordinator a maximum of five teachers to work with.
- Coordinators would only be required to provide the lists to the teachers and offer their help in dealing with the students as a group or on an individual basis. Beyond this, coordinators would keep notes of further contacts made and help provided through the rest of the school year.
- The Project PASS coordinator said she and her trainers would like to participate. These classes were also served by regular instructional coordinators.

- Most coordinators felt they had ideas on what to recommend for retainees but that a list of ideas on helping pre-k students would help. The Director of Elementary Curriculum said she would try to develop a list with the help of a coordinator committee if she had time (this was not accomplished during the 1982-83 school year).
- Three coordinators volunteered to meet with the evaluators again to finalize details once the number of pre-k and retainee classes was known.

The programmer for the retention study then developed a computer listing by school and class of all retainees and/or pre-k students. A problem was discovered at this point - - teacher assignments for students were only available for those students who had taken the Metropolitan Readiness Test (MRT) in the fall (an optional test). The only information available for the rest of the students was school assignments. This necessitated calling or visiting approximately 30 schools to find out which classrooms the students were in. Schools were called if a small number of students were unassigned (the MRT was given at the school but the students were absent or the teacher code was missing) and visited if none of the students were assigned to classes. The evaluation assistants for Chapter 1 and Retention completed this task. The evaluators and the coordinator subcommittee met and finalized details of the study once an approximate number of classes had been established.

A total of 45 of the 61 elementary schools had retainees or pre-k students in their first-grade classrooms. About 200 classrooms included retainees and/or pre-k students, 132 included both types of students. The sample was drawn from the 132 classes which included both types of students. A random sample of 5 classes was then drawn for each of the 9 regular coordinators. Some had larger pools of classes to choose from than others because of the distribution of retainees and pre-k students in the District. Seven classes were randomly chosen for the regular coordinators that were also served by one of the four Project PASS trainers.

Distribution

The primary coordinators were sent final study details, lists of classes, and an optional recording form on December 1st (see Attachment F-2). Coordinators were asked to contact the teachers just after the winter break. Class lists showed the teachers' name and school and those students who were retained and/or pre-k students in each class. Two coordinators called about classes on their list that were really served by other coordinators, appropriate adjustments were made This resulted in the addition of one coordinator to the study, for a total of 11 coordinators. A master list of coordinators and class assignments is included as Attachment F-3.

Part I - Interviews

The survey form was developed by the evaluator for the retention study, discussed with the Project PASS and Chapter 1 evaluators and Director, and finalized early in May (see Attachment F-4). Coordinators were randomly split into two groups of six and five for interviews. The Director interviewed six coordinators and District Priorities evaluators interviewed five (the retention evaluator interviewed four and the Project PASS evaluator one). Responses were then discussed in a meeting June 6.

Analyses and Results

There was a wide variety in the types of answers or comments which were given in response to the interview form. In addition, three different individuals conducted interviews. Thus, mathematical "tallying" of the results was difficult on some items. Quantitative data were available and of special relevance to the study on the topics noted below. Of the eleven coordinators that were interviewed, eight reported that they had supplied the targeted teachers with the list of former pre-kindergarten and retained students. One of the three remaining coordinators reported that she did no additional intervention with these teachers (and did not provide the lists because she was not certain whether or not she was supposed to do so). The students of those teachers were omitted from the analyses. The Project PASS coordinator reported that the trainers did not provide their teachers with lists of retainees and former pre-kindergarten students, although these lists were available from the regular coordinator. Trainers did work on special plans for all Black retainees but not as part of this study. A third coordinator did not provide lists, but asked teachers if they knew which students in their class were retainees or former pre-kindergarten students. In addition, she reported several other special activities with these teachers, and students in those classes were included in the analyses.

Only one coordinator actually reported that she worked with the targeted teachers *more* than she usually would. Four coordinators reported that they discussed with teachers ways to work with parents of retainees. Three coordinators discussed with teachers ways to improve retainees self concept and attitude toward school, while the same number discussed "special skill" work with these students. Two coordinators referred teachers to the tapes available on diagnosis, direct-instruction, and self-concept of retainees.

The coordinators who were interviewed as part of this study had several suggestions and comments about working with these two student populations. In general, they felt that calling teachers' attention to these students was helpful, and that more specific suggestions and/or a more structured intervention would be useful. It was felt that there was a need for this "focusing" to occur at the beginning of the school year, with some individualized instructional or enrichment activities considered for these children. For example, retainees might benefit from using a different basal reader when they repeat a grade level. It was suggested that lists of these students, or all low-achieving students, could be given to both teachers and coordinators. Finally, teachers need to be made aware of the curriculum covered in kindergarten and pre-kindergarten classes.

There were also some recurring comments about teaching methods for retainees. One concern was the need for smaller class sizes and more awareness of the needs of retainees by teachers of these students. There is a need to avoid teaching the same material twice in the same way. New teachers appeared to have greater difficulty in the area of working with retainees. Teachers appeared to be more aware of who the retainees were than of former pre-k students. Also, the coordinators seemed to find it easier to give suggestions for helping retainees than for helping former pre-k students. More suggestions and comments are included in Attachment F-5.

Part II - ITBS Information

Analyses

Since many of the students on the original list did not have teacher assignments, the District Priorities' data analyst first determined class assignments by a match with the student Master File. This was necessary to divide the students into a treatment and control group--the process basically duplicated what was done by hand in the fall.

Regression analyses were then run using Jenning's MODEL program and AISD's IBM 4341 computer. In math, Math Total ITBS scores for spring 1982 and spring 1983 were compared. In reading, Reading Total scores for the two years were used for the retainees. However, Language Total scores had to be used as a pretest for former pre-k students since kindergarteners do not take a reading test. The regression analyses tested whether there was any difference in the achievement of former pre-k and retained students who were in classes where "target" lists were distributed and those classes where they were not. The coordinator who did not distribute the lists to her teachers or do additional intervention with the teachers was not included in either group. One regression analysis was run for reading and one for math with both groups (former pre-k and retainees) combined. Means were also calculated for former pre-k students, retainees, and former pre-k retained students in both reading and math.

Results

No significant differences were found in the achievement of students in target classes compared with controls. This was true both in reading and math. A linear relationship was found between pre- and posttest scores in math with a curvilinear relationship in reading. The correlation between pre- and posttest scores was .38 in reading and .53 in math.

Mean pretest and posttest scores are shown for former pre-k, retained, and former pre-k students who were also retained in Figures F-1 through F-4. There figures reveal very little difference in gains or achievement patterns for either pre-k or retained students.

Overall, it appears that this intervention was not sufficient to impact student achievement. It could be that a more structured intervention provided earlier in the school year might be helpful. Some alternative strategies might also be considered. On the administrator survey, administrators indicated that more direct help from instructional coordinators to the teachers of retainees might be very helpful.

	N	Pretest*(K)	Posttest(lst)	Gain
Treatment	63	.5143	1.8889	*
Control	167	.4641	1.6467	*

Figure F-1. SCORES FOR FORMER PRE-K STUDENTS IN GRADE 1 (PRETEST: LANGUAGE GRADE EQUIVALENT, POST-TEST: READINC TOTAL GRADE EQUIVALENT.)

*No gain computed, since a reading pretest score was unavailable.

	N	Pretest(K)	Posttest(lst)	Gain
Treatment	68	.3515	1.6706	1.3191
Control	184	.4016	1.6402	1.2386

Figure F-2. SCORES FOR FORMER PRE-K STUDENTS IN GRADE 1 (MATH GRADE EQUIVALENT SCORES, SPRING 1982 AND 1983.)

	Group	N	Pretest	Posttest	Gain
Retainees	Treatment	51	1.0078	1.8056	0.7980
	Control	138	1.0400	1.9200	0.8775
Retainees w/ Pre-K	Treatment	9	1.2000	1.8222	0.6222
	Control	25	1.0360	1.7600	0.7240

Figure F-3. READING SCORES FOR RETAINEES AND RETAINEES WITH PRE-K. (READING TOTAL GRADE EQUIVALENTS, SPRING 1982 AND 1983.)

	Group	N	Pretest	Posttest	Gain
Retainees	Treatment	52	1.1673	1.8519	0.6846
	Control	152	1.1757	1.8257	0.6500
Retainees w/ Pre-K	Treatment	9	1.4222	1.9778	0.5556
	Control	31	1.2387	1.8226	0.5839

Figure F-4. MATH SCORES FOR RETAINEES AND RETAINEES WITH PRE-K. (MATH TOTAL GRADE EQUIVALENTS, SPRING 1982 AND 1983.)

Attachment F-1

Discussion Guide
November 4, 1982
3:00-4:00

COORDINATOR STUDY

1. What is the study designed to do?

   - to determine whether calling teacher attention to first-grade students with special needs (retainees and former pre-K students) and offering help in dealing with these students makes a difference to student achievement.

   - to determine what coordinators did with teachers that might account for this difference (advice given, actions taken, etc.)

2. What must coordinators do for the study?

   - The study is designed to be "naturalistic," and capture normal coordinator interaction with teachers as much as possible. The only things coordinators must do are:

     A. Call selected teachers' attention to retainees and former pre-K students in their classrooms.
     B. Offer to help the teacher on request with addressing the needs of these students (individually or as a group).
     C. Report to ORE on visits made and advice given (through calendar notes, observation forms, other forms, and/or interviews).

   - Coordinators do not have to:

     A. Assess individual student problems through testing or other means unless they normally would.
     B. Visit a set number of times beyond the first contact.

Meeting Questions

1. How many classes should coordinators be assigned?
2. Should Project PASS schools be treated separately? Are Project PASS and regular coordinators working with the same classes?
3. Do the efforts of regular coordinators overlap with those of Special Ed and special program coordinators at the first-grade level?
4. Do coordinators need a form to record advice given and visits? If so, of what type? Should use be optional? Would April interview be sufficient? Should a checklist of possible interventions be created?
5. Do coordinators need or want advice past that given through the retention tape script?
6. Will coordinators know what to suggest to do for pre-K students? Should a list of suggestions be developed?

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

December 1, 1982

TO: Primary Coordinators Addressed

Nancy B. Schuyler
FROM: Nancy Baenen Schuyler, Karen Carsrud

SUBJECT: Working with First-Grade Teachers

We met with the subcommittee (Rita Gibbs, LaVonne Rogers, Etta Hollins) set up to work out details on the coordinator/teacher study. We made some decisions about how coordinators should work with the teachers of first-grade retainees and former pre-K students. I'm sorry it has taken this long to get all the materials together, but you know how it goes sometimes!

Attached are a summary guide, your list of five classes to work with and an optional recording form which you can use if you want. The committee decided the retention scripts and your own experience and research were sufficient to give you ideas on how to work with retainees. The group felt some ideas on working with pre-K students might be helpful, and Timy may have contacted some of you about developing a list. You can recommend any techniques you think will be effective to the teachers.

Start contacting your teachers right after the winter break. The lists provided should be right, but don't be too surprised if a child has transferred in or out of a class.

NBS:KC:rrf
Attachments

Persons Addressed:
- Cecile Banks
- Rita Gibbs
- Yolanda Leo
- Maria Elena Martinez
- Graciela Morales
- LaVonne Rogers
- Ana Salinas
- Graciela Zapata
- Paola Zinnecker
- Etta Hollins

Approved: ______________________________
Director, Office of Research and Evaluation

cc: Ruth MacAllister, Timy Baranoff

COORDINATOR STUDY
GUIDE

What is the purpose of the study?

The general purpose is to find out whether calling teacher attention to first-grade students with special needs (retainees and former pre-K students) and offering help in dealing with them makes a difference to the students' achievement. If so, the advice given and actions taken by coordinators will be examined to see if effective techniques can be identified.

What must coordinators do for the study?

The study is designed to be "naturalistic" and capture normal coordinator interaction with teachers as much as possible. The only things you must do are:

1. Visit the classroom of the five selected teachers at least once. Call their attention to the retainees and former pre-K students in their classrooms.

2. Offer to help the teacher address the needs of these students individually or as a group on request.

3. Keep track of advice given to teachers on students individually or in general, on the number of visits made, and on any evidence that the teacher followed through (from self-report or observation). You can keep notes on your calendar, observation forms, the optional form attached, or in another convenient way. Just have the information available in April or May when you will be interviewed by an ORE evaluator.

What is optional? What do coordinators not have to do?

1. Coordinators do not have to visit a set number of times past the first contact. Do what you normally would and respond to teachers' requests for help.

2. Coordinators do not have to assess individual student problems through testing or other means unless they normally would do so.

3. Ideas can be taken from the "Focus of Instruction" sheets for retainees based on the tapes but don't have to be. Suggest whatever techniques you think are appropriate.

What about classes also served by special area coordinators?

You may have classes also served by special education or Chapter I coordinators or a Project PASS specialist. Serve these classes as you normally would. Special Education and Chapter I coordinators will not receive the list of students but the Project PASS specialist will. Coordinate your efforts with her to the extent you normally would. We will ask how this worked out next spring in the interview.

COORDINATOR/FIRST-GRADE TEACHER STUDY

OPTIONAL RECORDING SHEET

DATE OF VISIT:
TEACHER:
STUDENT(S):

AREA OF NEED:

PROPOSED SOLUTION:

FOLLOW-UP

DATE OF VISIT:
PROGRESS REPORT:

COORDINATOR:
LA VONNE ROGERS

TEACHER	SCHOOL	No. Retained	No. Pre-K
WILLIAMS, MARY	ROSEWOOD	2	6
FELL, ANNA	SIMS	1	6
ACOSTA, IMELDA	RIDGETOP	1	5
CAROLYN CLEMONS	TRAVIS HEIGHTS	2	1
NINA ARNOLD	TRAVIS HEIGHTS	1	2

COORDINATOR: GRACIELA, ZAPATA

TEACHER	SCHOOL		
SEPULVEDA, DELORES	ZILKER	1	2
JACKSON, ALICIA	ZILKER	1	1
MYERS-ORTIZ, CATHY	LINDER	1	1
SAENZ, SYLVIA	SANCHEZ	1	4
ZOCH, JERRILYN	LINDER	4	1

COORDINATOR: RITA GIBBS

TEACHER	SCHOOL		
LOPEZ, DORA	BECKER	1	3
OLVERA, MARTHA	CASIS	4	4
GIL, RICHARD	DAWSON	3	5
SANCHEZ, CYNTHIA	BECKER	2	4
MACARI	ODOM	2	1

COORDINATOR: ANA SALINAS

TEACHER	SCHOOL		
KELSO, BEULAH	HIGHLAND PARK	3	5
REED, JAYNE	ANDREWS	2	1
ALLEN, JEAN	ANDREWS	3	3
POWERS, ROSE	HIGHLAND PARK	3	3
BROWN, AVENELL	MAPLEWOOD	1	1

COORDINATOR: PAOLA ZINNECKER

TEACHER	SCHOOL		
YAZDANPANAHI, RUBY	HARRIS	1	1
MC SHEA, ELLEN	METZ	4	3
RAMSEY, REBECCA	HARRIS	2	1
HARTENSTEIN, JOYCE	PECAN SPRINGS	2	1
BURSTYN, ADALINE	METZ	5	2

COORDINATOR: GRACIELA MORALES

TEACHER	SCHOOL	Retained	Pre-K
ROBLES, VICKI	ALLAN	3	1
BROWN, MARY	ALLAN	7	2
NELSON, JUDITH	ALLAN	2	3
NEWMAN, LUDESSA	GOVALLE	1	3
HERNANDEZ, MARY	ALLISON	3	4

COORDINATOR: YOLANDA LEO

TEACHER	SCHOOL		
MISENHEIMER, ELIZABETH	JOSLIN	1	1
RUST, LORI	OAK SPRINGS	2	6
MILLER, BETTY	WILLIAMS	2	2
HOLEKAMP, GEORGE	LANGFORD	3	1
COURTNEY, TERESA	LANGFORD	2	1

COORDINATOR: ANITA UPHAUS

TEACHER	SCHOOL		
KINGSBURY, MARY	SUNSET VALLEY	3	4
GUNTER, GLORIA	SUNSET VALLEY	2	2
LUCCHESE, MARGARET	SUNSET VALLEY	1	1

COORDINATOR: MARIA ELENA MARTINEZ

TEACHER	SCHOOL		
ANDERSON, LINDA	BROWN	2	9
FREDLEY, PHYLLIS	BROWN	4	4
DEUSER, CAROLE	BROWN	2	4
HOUSTON, GOLDIE	ST. ELMO	3	2
BRYANT, MARY	NORMAN	7	3

COORDINATOR: CECILE BANKS

TEACHER	SCHOOL		
MARTINEZ, JANIE	HOUSTON	4	1
SMOTHERMON, DIANE	HOUSTON	2	2

COORDINATOR: ETTA HOLLINS

	TEACHER	SCHOOL		
ANITA UPHAUS	GUNTER , G.	SUNSET VALLEY	2	2
	LUCCHESE, M.	SUNSET VALLEY	1	1
	KINGSBURY, M.	SUNSET VALLEY	3	4
LAVONNE ROGERS	WILLIAMS, M.	ROSEWOOD	2	6
	FELL, A.	SIMS	1	6
MARIA ELENA MRTNZ	BRYANT, M.	NORMAN	7	3
	HOUSTON, G.	ST. ELMO	3	2

INTERVIEWER__________________ (Page 1 of 2)

COORDINATOR/TEACHER STUDY--COORDINATOR INTERVIEW

COORDINATOR__________________

1. WERE YOU ABLE TO PROVIDE THE LIST OF PRE-K AND RETAINED STUDENTS TO THE TEACHERS IN YOUR GROUP? DID YOU TALK WITH THEM ABOUT GENERAL INTERVENTIONS WITH PRE-K AND RETAINED STUDENTS? ABOUT SPECIFIC INTERVENTIONS FOR SOME STUDENTS? WHICH TEACHERS REQUESTED SPECIAL HELP DURING THE YEAR? HOW OFTEN?

TEACHER	CHECK OFF:			NO. RET. OR PRE-K SPECIAL VISITS	SPECIAL HELP PROVIDED (BRIEFLY DESCRIBE)
	SUPPLIED LIST	GENERAL TALK	REQUESTED SPECIAL HELP		
1.					
2.					
3.					
4.					
5.					
6.					
7.					

2. WHAT SPECIFIC HELP DID YOU PROVIDE TO TEACHERS DURING THE YEAR? DID HELP VARY BY TEACHER (IF SO, NOTE SPECIAL INTERVENTIONS GIVEN TO ONLY SOME TEACHERS ABOVE)?

RETAINEES

TAPES:
_____diagnosis
_____direct instruction
_____self-concept
_____parent-teacher conference

DISCUSSED:
_____working with parents
_____ways to improve self-concept/attitude toward school
_____specific skill work (what areas, materials?)

OTHER & COMMENTS:

PRE-K STUDENTS:

_____special assignments to maintain skills
_____ways to check status and progress
_____what pre-K curriculum covers

OTHER AND COMMENTS:

3. FOR THOSE CLASSES ASSIGNED TO A PROJECT PASS AND REGULAR COORDINATOR: DID YOU WORK INDEPENDENTLY OF THE OTHER COORDINATOR ASSIGNED TO THESE CLASSES? DID YOU COORDINATE EFFORTS? IF SO, HOW?

4. DID YOU END UP WORKING WITH THESE TEACHERS MORE THAN YOU USUALLY WOULD?

____YES ____NO

5. WHAT CAN BE DONE THAT WILL BENEFIT PRE-K AND RETAINED STUDENTS THE MOST? WHAT DIRECTION SHOULD WE MOVE IN? WHAT INTERVENTIONS HAVE THE BEST CHANCE FOR SUCCESS?

RETAINEES:

PRE-K:

6. REFLECT ON YOUR PARTICIPATION IN THIS EXPERIENCE. WAS IT HELPFUL TO TEACHERS AND STUDENTS? WHAT PROBLEMS DID YOU ENCOUNTER? DID THE LISTS HELP TO FOCUS ATTENTION ON THESE STUDENTS? DID TEACHERS WANT HELP? SHOULD THE INTERVENTION BE MORE STRUCTURED?

This list represents a compilation of ideas taken from the interviews. Comments are paraphrased and meant to act as a starting point for possible brainstorming of ideas in the fall.

Retainees

- Recommend additional enrichment activities for students (e.g. word cards, sentence strips, supplemental books, things to do at home).
- "Centers" to work in when regular work is finished.
- Use teacher's voice on instructional tapes.
- Build student's self concept.
- Do not retain a child and make him Special Education at the same time.
- Continue special services to low achievers regardless of "financial" status of campus student is assigned to!
- Increase communication between paired schools--standardize curriculums.
- Teach alphabet and sounds to all kindergartners--some teachers lower their expectations for 1st graders who don't know the alphabet.
- Capitalize on and nuture love of learning students exhibit entering first grade.
- Special meetings with first-grade teachers.
- Staff Development.
- Consider placing retainees with more experienced teachers rather than new teachers.
- Publish newsletter for teachers of retainees.
- Place in group other than low. This will enhance student's chance for challenge and success.
- Change basals if students move laterally.
- Do not cover same material twice.
- Smaller class sizes.
- Stronger parental support.
- Develop greater sensitivity in teachers working with retainees (guard identity of retainees, treat them as normal as possible, etc.).
- Adapt child to academic program rather program to child.
- Create a list of at-home activities for retainees.
- Make sure students know the purpose behind lessons and assignments.
- Look at learning styles early in year to prevent problems.
- Mixed emotions about retention -- not big on retaining kindergartners. I know and parents know first-grade retention is best because of basic reading and math instruction.

Prevention

- Kindergarten curriculums need to be standardized across schools -- especially in paired schools. Some students are better prepared for 1st grade than others and teachers sometimes give up on those already behind.
- Cater to child without singling him out too often.

- Provide direct instruction and practice with minimal independent work.
- Concentrate on reading and math and teach these basics during science and social studies as well--1st and 2nd are last chance for these basics.

Former Pre-K

- Continue in current direction.
- More structured situation building on known skills.
- Provide more direct teaching.
- Monitor centers students use during kindergarten to detect whether academics centers are being avoided.
- Don't just focus on volunteers, call on those who do not raise hands or ask questions.
- Provide staff development in individualized instruction.
- Kindergarten teachers should raise their expectations.
- Assess at first--don't teach again.
- Criteria should be followed in identifying children to be served by pre-k and teachers should be told who had pre-k.
- Increase kindergarten teachers' awareness of pre-k classes.
- Higher level things need to go on in kindergarten--only tool to help teachers in form of seminar to enhance kindergarten.
- Alphabet and sounds should be taught systematically in kindergarten.
- Kindergartens across the District need to standardize what they teach more--new guide may help.
- Capitalize on and nurture the love of learning that kids come into first grade with.
- Use new DLM materials being used at Gullett--balanced analytic and experience approach.
- Use grouping in kindergarten (e.g. like at Campbell).

Other Comments

- Teachers new to AISD seem to have difficulty coping with retainees and pre-k.
- These students should be placed with more experienced teachers.
- Kids' attitude must be kept positive. Some kids get very negative, especially retainees, who can't understand the purpose of working on the same thing. Change kids' attitudes from "I can't" to "I can."
- Closely monitor students' progress. Use different series and forms of reinforcement.
- Let teachers enter information on special activities done with students on cumulative folders.
- Black kids only--didn't make much difference if pre-k or not--most frequent topic was language--sometimes dialect problem--other times communication suggested teacher use tape recordings and have child listen--suggested teachers use poetry to help develop students' language skills. Tried not to focus on just coordination of pre-k skills. Tried to use holistic rather than linear approach.

- If students do not learn by traditional method, teacher should develop alternate method of teaching.
- Staff development workshop could be held to help teachers in selecting and preparing materials for alternate teaching methods.
- Not sure some teachers are aware of the difference between former pre-k and regular students.

READING TOTAL

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.  FTEST-FTEST 2                                                              .
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.      MODEL     RSQ.       SS(ERROR)      MEAN SQUARES         F       PROB  .
.                                                                             .
.  FULL    1  0.1603        212.1785         0.4553         3.0776 0.0469  .
.  REST    5  0.1492        214.9810                                          .
.  DIFF.      0.0111          2.8025         1.4013     DF1= 2. DF2=  466.  .
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.  FTEST-FTEST 1                                                              .
.                                                                             .
.      MODEL     RSQ.       SS(ERROR)      MEAN SQUARES         F       PROB  .
.                                                                             .
.  FULL    1  0.1603        212.1785         0.4553         1.2543 0.2625  .
.  REST    2  0.1581        212.7498                                          .
.  DIFF.      0.0023          0.5713         0.5713     DF1= 1. DF2=  466.  .
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.  FTEST-FTEST 3                                                              .
.                                                                             .
.      MODEL     RSQ.       SS(ERROR)      MEAN SQUARES         F       PROB  .
.                                                                             .
.  FULL    2  0.1581        212.7498         0.4556        -0.0054 1.0000  .
.  REST    3  0.1581        212.7474                                          .
.  DIFF.     -0.0000         -0.0024        -0.0024     DF1= 1. DF2=  467.  .
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.  FTEST-FTEST 5                                                              .
.                                                                             .
.      MODEL     RSQ.       SS(ERROR)      MEAN SQUARES         F       PROB  .
.                                                                             .
.  FULL    3  0.1581        212.7474         0.4546         1.1128 0.2915  .
.  REST    4  0.1561        213.2533                                          .
.  DIFF.      0.0020          0.5059         0.5059     DF1= 1. DF2=  468.  .
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MATH TOTAL

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.  FTEST-FTEST 2                                                            .
.                                                                           .
.    MODEL      RSQ.        SS(ERROR)     MEAN SQUARES          F      PROB .
.                                                                           .
.  FULL    1  0.2887        105.0236         0.2143       1.3465 0.2614     .
.  REST    5  0.2848        105.6007                                        .
.  DIFF.      0.0039          0.5771         0.2386     DF1= 2. DF2=  490.  .
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.  FTEST-FTEST 6                                                            .
.                                                                           .
.    MODEL      RSQ.        SS(ERROR)     MEAN SQUARES          F      PROB .
.                                                                           .
.  FULL    5  0.2848        105.6007         0.2146       0.3454 0.5567     .
.  REST    6  0.2843        105.6748                                        .
.  DIFF.      0.0005          0.0741         0.0741     DF1= 1. DF2=  492.  .
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.  FTEST-FTEST 7                                                            .
.                                                                           .
.    MODEL      RSQ.        SS(ERROR)     MEAN SQUARES          F      PROB .
.                                                                           .
.  FULL    6  0.2843        105.6748         0.2144       1.0605 0.3039     .
.  REST    7  0.2828        105.9021                                        .
.  DIFF.      0.0015          0.2273         0.2273     DF1= 1. DF2=  493.  .
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. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
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ECIA Chapter 1

Appendix G

INTERVIEW WITH DIRECTORS OF CHAPTER 1 NEGLECTED AND DELINQUENT INSTITUTIONS.

Instrument Description: Interview with Directors of N & D Institutions.

Brief description of the instrument:

The interview form consists of 15 open-ended questions administered orally. The items cover such areas as services provided, extent of contact with AISD schools, standardized testing and resident population characteristics.

To whom was the instrument administered?

The four N & D directors whose institutions received Chapter 1 funds. At one institution the executive director and administrative director both participated. Some directors referred some questions to their institution's Chapter 1 teacher or aide, who responded later in writing.

How many times was the instrument administered?

Once to each director.

When was the instrument administered?

Three of the directors were interviewed in December 1982. The executive and administrative directors of the fourth were interviewed in April 1983.

Where was the instrument administered?

In the director's offices.

Who administered the instrument?

The Chapter 1 Evaluation Intern.

What training did the administrators have?

None.

Was the instrument administered under standardized conditions?

The settings were all similar. Although the interviewer sometimes asked a director to clarify or further explain an answer, the order of the questions was the same. Even when the subject answered a following question in the course of answering a preceding one, all questions were asked.

Were there problems with the instrument or the administration that might affect the validity of the data?

No.

Who developed the instrument?

The Chapter 1 Evaluation Intern, with review by the Chapter 1 Instructional Administrator and the Chapter 1 Evaluator.

What reliability and validity data are available on the instrument?

None.

Are there norm data available for interpreting the results?

No.

INTERVIEW WITH DIRECTORS OF CHAPTER 1 NEGLECTED AND DELINQUENT INSTITUTIONS.

Purpose

Interviews with directors of four Chapter 1 N & D Institutions were conducted to help answer the following decision and evaluation questions:

Decision Question D4: Should the N & D and non-public school Chapter 1 components be modified? If so, how?

Evaluation Question D4-1: What Chapter 1 services are offered to students in N & D institutions?

Because information about the services and activities of the N & D institutions was not readily available, the interviews were not confined to questions directly pertinent to Chapter 1 service, but also asked about student population characteristics, contact between the institutions and AISD schools, and standardized testing done at the institutions. (See Attachment G-1 for the interview form.)

Procedure

The Chapter 1 Evaluation Intern conducted interviews with the Administrators of Salado House and Settlement Club Home, and the Clinical Director of Junior Helping Hand Home, on December 2 and 3, 1982. The Executive Director and Administrative Director of Middle Earth Unlimited were interviewed April 15, 1983. (The directors at Settlement Club Home and Junior Helping Hand Home referred the questions about standardized testing to the on-site AISD teacher and the Chapter 1 tutor, respectively. These responses were obtained by telephone by the Chapter 1 Evaluation Intern and are noted where they occur in the results section.)

After the interviews were completed, the tapes (for the first three interviews) or notes (for the last) were reviewed by the Chapter 1 Evaluation Intern. Paraphrased summaries of responses are presented in the results section of this Appendix.

Results

Summaries of the directors' responses follow. To improve coherence, questions and response summaries are grouped by common theme.

I. WHAT SERVICES ARE PROVIDED TO CHAPTER 1 STUDENTS HERE AT EACH FACILITY? HOW MUCH TIME PER DAY ARE STUDENTS SERVED BY CHAPTER 1?

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Three of the institutions use Chapter 1 funds to hire aides to work with students. The institutions differ in the number of hours budgeted for Chapter 1 aides. The position at Salado House is half-time, or a total of 740 hours for the 185-day school year. The aides at Junior Helping Hand Home and Settlement Club Home are budgeted for 504 hours and 357 hours respectively. Salado House had trouble filling the position this year and had just hired the Chapter 1 aide at the time of the interview. Planned services at Salado House were:

- Individual tutoring from 4:00 to 5:00 p.m. for students who are not doing well in school, as determined by weekly progress reports from the schools.
- A supervised study hall for all residents from 6:15 to 7:15 p.m. The Chapter 1 aide assists students with problems during this time.
- From 1:00 to 4:00 p.m., the Chapter 1 aide visits schools and meets with teachers.

Settlement Club Home operates a full-day classroom, taught by an AISD Special Education teacher, for eight students. For part of the day, the teacher is assisted by the Chapter 1 aide, who works with individual students as needed. The aide also takes over the class for one hour per day. It should be noted that the 357 hours budgeted for the aide is an average of two hours per day for the 185-day school year.

At Junior Helping Hand Home, children are served individually for twenty minutes at a time, twice a week. They are also served in groups of two or three twice a week. The director estimated that each resident is served for about 30 minutes per day, combining her individual and small group work.

Middle Earth Unlimited did not have an aide whose salary was paid with Chapter 1 funds, but they did employ a tutor from other funds who used materials purchased with Chapter 1 funds. This tutor had recently resigned and the position was vacant at the time of the interview. Residents had been receiving tutoring in reading, writing, math, and independent-living skills, and had been given assignments to do between sessions. The time spent averaged about an hour per day per student.

II. HOW DO YOU SELECT STUDENTS TO RECEIVE CHAPTER 1 SERVICE? DO YOU ADMINISTER STANDARDIZED READING ACHIEVEMENT TESTS? IF SO, WHICH ONES AT WHAT GRADES? WHEN (AT ENTRY? AT EXIT? BOTH?)

None of the institutions are using standardized reading achievement tests to select Chapter 1 students. Junior Helping Hand Home used the California Achievement Test (CAT) until this year but felt it was too hard for their residents. They were looking for a more appropriate test and in the meantime are basing their decisions about service on a combination of criteria, including the school's placement of the child (Special Education or regular classroom) and teacher judgement.

At Settlement Club Home, whether or not a student is served by Chapter 1 depends on where the student is placed: those in regular schools are not served (they are high school age), while those attending school at SCH are all served. The major factor in the student's placement is emotional stability, not academic functioning, although the director pointed out that emotional and learning problems often occur together. At the time of the interview, the director estimated that six of the eight students in the SCH classroom had learning problems, and said that the Chapter 1 aide gave more attention to those six. The AISD teacher said that Settlement Club administers the Woodcock-Johnson test to each student as he or she enters and to all residents during the spring of every third year, but they do not use the results to determine Chapter 1 eligibility.

Salado House residents are given a battery of tests at the statewide reception center, before they are referred to Salado House. The director was not certain which reading achievement tests are administered at the statewide center, but thought that both the Wide Range Achievement Test (WRAT) and Metropolitan Achievement Test (MAT) are given. The school plans to start giving the WRAT to students just before they leave Salado House, as a posttest. Test scores are not used to determine Chapter 1 eligibility; all Salado House residents are served by Chapter 1.

All Middle Earth residents are served by Chapter 1 materials unless they have a GED (as did three of the eight residents at the time of the interview). All residents are administered the WRAT at entry and at exit. Middle Earth also receives achievement test results from residents' past schools.

All four institutions receive scores from any standardized tests administered to their residents in AISD schools. Only Junior Helping Hand Home receives scores from other districts the students might previously have attended.

III. IF YOUR STUDENTS ATTEND AISD SCHOOLS, DESCRIBE THE KIND OF CONTACT YOU HAVE WITH THE SCHOOLS. DO YOU WORK WITH STUDENTS' AISD CLASSROOM TEACHERS IN PLANNING YOUR SERVICES?

Eighteen of Salado House's 23 residents attend AISD schools. Salado House receives weekly written progress reports from teachers. Each AISD teacher rates each student on attendance, effort, and behavior, gives a "grade for the week," and may write in additional comments. Salado House staff confers with teachers if problems occur. Also, the Director planned for the newly hired Chapter 1 aide to spend three hours per day visiting schools and meeting with residents' teachers.

At Settlement Club Home, eight residents attend school in the AISD classroom located on the grounds. AISD's Special Education liaison visits once a week to supervise the teacher. The remaining SCH residents attend regular AISD schools at least part time. Social workers assigned to these students have contact with the students' schools.

All Junior Helping Hand residents attend AISD schools. The case aide is a liaison between AISD schools and JHH staff. The Chapter 1 tutor meets weekly with each resident's AISD teacher.

At the time of the interview, no Middle Earth residents were attending school. Two had recently dropped out. Middle Earth has traditionally had contact with counselors, not teachers. The Director said that they needed to work with teachers more in the future.

IV. WHAT ARE THE BIGGEST PROBLEMS YOU HAVE IN PROVIDING EFFECTIVE CHAPTER 1 SERVICE AT THIS INSTITUTION?

The director of Salado House said that his biggest problem was that the pay is so low ($5.63/hour, half-time) that it was hard to hire a Chapter 1 tutor. The position was not filled until the last week in November.

The director of Settlement Club Home and the Chapter 1 tutor at Junior Helping Hand Home both said the students' emotional and behavioral problems are the biggest difficulties.

The Executive Director of Middle Earth noted that lately more people were being referred to the institution by their families and by the Juvenile Justice system rather than the Child Welfare system, and that these people tended to be more capable academically. As a result, many of the Chapter 1 materials in use were inappropriately easy and needed to be replaced. In addition, the Administrative Director noted several problems. First, all the current residents had full-time jobs. They were not very motivated to spend free time on academics; moreover, most residents have had bad experiences with school systems in the past.

Second, both programs run by the Middle Earth organization, "Spectrum" and "Turning Point," are short term by design, with an average duration of 17 days and 3 months respectively. Clients' primary goals during that time are to work and save some money while they learn skills they need for independent living. Traditional academic skills are not the highest priority. Finally, it is difficult to maintain a good learning environment in the midst of "home". The institution is designed to be a residence, not a school, and the physical and behavioral settings reflect this.

V. DO YOU FEEL THE CHAPTER 1 PROGRAM IS BENEFICIAL TO YOUR STUDENTS?

All the directors thought that, despite the problems, Chapter 1 was very beneficial. The director of Salado House qualified his answer because he was new to the position and because the Chapter 1 tutor had just been hired, but he said that based on his experience in a similar position in Corpus Christi, he thought Chapter 1 was beneficial.

VI. HAVE YOU MADE ANY CHANGES IN YOUR CHAPTER 1 PROGRAM IN THE PAST TWO YEARS? HOW SATISFIED HAVE YOU BEEN WITH THE RESULTS OF THE CHANGES?

Each institution has made changes. Salado House was planning to extend Chapter 1 service to residents who are not in school but are studying for the GED. Because they had not begun Chapter 1 service at the time of the interview, the director could not evaluate the results, but he thought it was a good idea.

Settlement Club Home lost funding for a Chapter 1 aide for evening tutoring, which forced an involuntary reduction in service and which the director regretted very much. Settlement Club Home has also begun teaching with specific vocational and school goals in mind; as the director put it, "We measure ourselves more." For example, at the time of the interview the Chapter 1 tutor was working with four of the residents with the specific goal of helping them get Saturday jobs; then she planned to evaluate their success within those jobs.

The director at Junior Helping Hand Home replied that they were doing more individual instruction than in the past, and that she was very satisfied with the results.

Middle Earth Unlimited had made some procedural changes. They now administer the WRAT instead of the CAT as a diagnostic instrument, because the CAT took too long to administer, had too many subareas and gave them more detailed information than they needed. They are also having someone other than the teacher administer standardized tests.

VII. WHAT IS THE AVERAGE LENGTH OF STAY FOR A STUDENT AT THIS INSTITUTION? WHAT IS THE RANGE?

Salado House:	The average in four to six months. Some students stay eight months; seldom does a student stay fewer than four months.
Settlement Club:	The average is a little over nine months. The range is one to two months to 2 1/2 years.
Junior Helping Hand:	The average is one year, the range is six months to two years.
Middle Earth:	For the Spectrum program, the average is seventeen days, with some clients staying as long as 30 days. This is designed as an Emergency Shelter program. Clients in the Turning Point program stay from one to six months, with an average of six months.

Summary and Conclusions

Because the four institutions differ in the age range of their students, in the amount of Chapter 1 service budgeted, and in the setting in which students spend the school day, it is somewhat difficult to reach general conclusions that are meaningful. Each institution has designed its Chapter 1 program to accommodate the conditions under which it operates.

Obvious problems result when one trys to evaluate such diverse programs. No grade level has a sufficient number of students to allow for statistical analysis, and aggregation of data from such different settings and funding levels would probably not be appropriate in any case.

All the instituions provide at least some one-to-one tutoring. The Chapter 1 tutor at each institution except Middle Earth Unlimited has contact at least weekly with each student's AISD teacher.

The director at one institution and the Chapter 1 tutor at another mentioned that the resident's emotional and behavioral problems sometimes interfered with effective Chapter 1 service ("It's difficult to help a kid with reading when he's hallucinating"), but all four directors though that the Chapter 1 program was very beneficial to their students and wished that more service were available.

None of the institutions used scores from standardized achievement tests to select students for Chapter 1; residents of N & D institutions are automatically eligible. However, because of the nature of the resident populations and the criteria for assignment to these institutions, it is very likely that most if not all of the students being served would qualify for Chapter 1 service if test scores were used. One director said, "All of our kids are behind in school - two grades, four grades, whatever." Another director said that her institution's residents were almost always placed in Special Education by AISD schools, and that only these students receive Chapter 1 service. (Special Education students are automatically eligible for Chapter 1 service within AISD Chapter 1 schools.)

Nevertheless, the absence of standardized achievement test scores for many of the students creates more difficulties for the evaluation. Some students have such scores from the admissions process for the institution, but may not have recent scores or exit/post-test scores, making it difficult to assess gains. It is also questionable whether pretest or selection scores would accurately measure educational need for these students who may be distraught at the time of testing. In short, meaningful evaluation of achievement gains in these settings appears difficult, if not impossible. In addition, achievement gains may not be the most important measure of the success of the program.

N & D Interview

1. What services are provided to Chapter 1 students here at this facility?

   How much time per day are students served by Chapter 1?

2. If your students attend AISD schools, describe the kind of contact you have with the schools.

   Do you work with the students' AISD classroom teachers in planning your services?

3. How do you select students to receive Chapter 1 services?

   Do you administer standardized reading achievement tests?

If so, which ones at what grades?

When? (At entry? At Exit? Both?)

Do you typically receive achievement test results from AISD or other districts the student may have attended?

4. What is the average length of stay for a student at this institution?

What is the range?

5. What are the biggest problems you have in providing effective Chapter 1 service at this institution?

6. Do you feel the Chapter 1 program is beneficial to your students?

7. Have you made any changes in your Chapter 1 program in the past two years? Please describe.

How satisfied have you been with the results of the changes?

ECIA Chapter 1

Appendix H

MATH RAINBOW KIT QUESTIONNAIRE

Instrument Description: Math Rainbow Kit Questionnaire

Brief description of the instrument:

The questionnaire contains seven items about Math Rainbow Kits, and was intended to gather information about such areas as the Kits' difficulty, directions, helpfulness, and parental enjoyment level. It was provided by ORE to be sent home by the students' school. The child received a free book when the survey was returned to the school. Three schools participated in the Kits, and also in the questionnaire.

To whom was the instrument administered?

Parents of students receiving Math Rainbow Kits. If more than one child in a family received the Kits, a questionnaire was sent for each child.

How many times was the instrument administered?

Once.

When was the instrument administered?

May of 1983.

Where was the instrument administered?

It was sent home with each student.

Who administered the instrument?

Self-administered.

What training did the administrators have?

None.

Was the instrument administered under standardized conditions?

No.

Were there problems with the instrument or the administration that might affect the validity of the data?

Parents who failed to return the survey may have different perceptions than those who did return it. Some students probably completed the survey themselves, rather than their parent.

Who developed the instrument?

Items were taken from previously administered ORE questionnaires, and were those the administrator of the Kits felt would be useful.

What reliability and validity data are available on the instrument?

None.

Are there norm data available for interpreting the results?

Some data exist from previous years for comparison.

MATH RAINBOW KIT QUESTIONNAIRE

Purpose

Although a separate Rainbow Kit Questionnaire was not part of the original Evaluation Design for 1982-83, the Chapter 1 evaluation staff agreed to coordinate with the instructional staff to collect and tabulate more specific information about the Math Rainbow Kits that was originally planned. Nevertheless, the questionnaire was also intended to help address the following decision and evaluation questions (originally part of the Parent Survey effort; see Appendix D):

> Decision Question D5: Can improvement be made in the ways the Chapter 1 program encourages parental involvement in their children's education?
>
> > Evaluation Question D5-1: To what extent do parents whose children receive Rainbow Kits:
> >
> > a) enjoy the activities?
> >
> > b) actually implement the activities?
> >
> > c) encounter problems when using the kits?

Procedure

The Math Rainbhow Kits are a series of lessons for parents and their children to do at home together. The lessons cover basic mathematics concepts such as time and money. A kit appropriate for each grade level, K-6, is available. Three schools received Math Rainbow Kits to distribute to their 1982-83 Chapter 1 students: Brown, Campbell, and Maplewood. In April of 1983, rosters with the names of students in these schools who were actually receiving the kits were obtained from the Chapter 1 coordinator for the schools. When the rosters were received, the name, school, and grade level of each child receiving the kits was keypunched and used to prepare cover letters and questionnaires for the parents and each child receiving a kits. For parents who had more than one child receiving the kits, a separate questionnaire and cover letter were prepared with questions pertaining to each specific child.

The cover letter to parents and the actual questionnaire are contained in Attachment H-1. Items on the questionnaire were contained on various Reading or Math Rainbow Kit Questionnaires in previous years' evaluations and were those requested by the project staff member who is administratively responsible for the kits. As in previous years, the questionnaire and cover letter were sent home with each participating child, and the child received a free book when the questionnaire was returned. (Delays in receiving the books from the publisher were partially responsible for the lateness of the data collection.) Questionnaires and labels for the cover letters were computer-generated with each child's name inserted in the appropriate sentences (where blanks appear on the samples in Attachment H-1.)

ORE staff delivered the cover letters and questionnaires to the school principals, along with the memo contained in Attachment H-2, in early May. These were sent home by school personnel as soon as possible. Schools requested replacements when students lost their original letter/questionnaires, and these were provided. The additional names of participating students who had not been on the original rosters were also submitted and letters/questionnaires were provided for these students. Any questionnaire that was returned by the last day of school was accepted and included in the analyses, and entitled the child to receive the free book.

Analyses and Results

Of the 408 questionnaires that were distributed by the schools, 210 were returned, for an overall return rate of 51.5 percent. In at least two cases, the surveys had clearly been filled out by the (third-grade) students rather than the parents. However, all questionnaires that were returned were included in the analyses, since it was not possible to determine all cases when students rather than parents might have filled out the questionnaire. Return rates by school and grade are shown in Figure H-1.

Analyses consisted of frequency counts for each response on each item. Figures H-2 through H-8 show the overall responses to each item. Project staff also indicated an interest in responses that were broken down by grade level. These grade level figures are included in Attachment H-3. However, the small "N"s at grades 1-3 make interpretations of these grade level data difficult. Some comments were also made by respondents to the questionnaire. These are shown in Attachment H-4.

The results indicated that most respondents (67.0%) thought the difficulty level of the kits was "just right," although difficulty with the directions was reported by 39.7% of the parents on "some," of the activities and 4.9% thought many or almost all the directions were too difficult. Most (67.5%) respondents thought the student had learned very much or much from the kits a large percentage (91.7%) enjoyed working with their children on the kits at least somewhat, and 52.8% enjoyed it very much. There was a variety of responses to the question about how much time was spent on the kits, but the most common response (45.2%) was that the student spent 15-30 minutes on the last activity. Respondents also reported that a few activities were done more than once (45.5%) or many of the activities were done more than once (24.8%). A large majority (89.1%) reported that activities were being kept in the box provided. Comparison of these data with data from last year's Math Rainbow Kit parent questionnaire indicated that about the same percentage of parents thought the activities were "just right," in terms of difficulty

(69% in 1982, vs 65% in 1983.) Results were also similar for the question about how much the child had learned (64% in 1982, vs 65% in 1983, said the child had learned very much or much from doing the activities.) The overall return rate for the two years was also quite similar (50% in 1982, vs 52% in 1983.) The only major area of difference came on the question about the difficulty of the directions. In 1982, 41% of the parents said none of the directions were too hard. In 1983, only 24% of the respondents said none of the directions were too hard, i.e., 76% gave a response indicating difficulty with the directions of one or more of the activities.

School

	Brown		Campbell		Maplewood		TOTAL	
GRADE	# Sent	/# Returned	# Sent	/# Returned	# Sent	/# Returned	# Sent	/# Returned
K	32	25	36	16	21	4	89	45 (50.6%)
1	30	12	0	0	17	9	47	21 (44.7%)
2	16	11	0	0	19	6	35	17 (48.6%)
3	15	11	0	0	14	4	29	15 (51.7%)
4	15	9	29	14	14	7	58	30 (51.7%)
5	8	3	58	32	15	6	81	41 (50.6%)
6	15	8	31	20	23	13	69	41 (59.4%)
TOTAL	131	79 (60.3%)	154	82 (53.2%)	123	49 (39.8%)	408	210 (51.5%)

Figure H-1. NUMBER OF RESPONSES BY SCHOOL AND GRADE.

308

```
ITEM1: How hard do you think these activities have been for ________?

                                                RELATIVE   ADJUSTED     CUM
                                     ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL               CODE      FREQ      (PCT)      (PCT)      (PCT)

                 Hard          2.        15        7.1        7.4        7.4

                 Just Right    3.       136       64.8       67.0       74.4

                 Easy          4.        37       17.6       18.2       92.6

                 Too Easy      5.        15        7.1        7.4      100.0

                               0.         7        3.3     MISSING
                                     ------     ------     ------
                             TOTAL      210      100.0      100.0

MEAN           3.256
MODE           3.000
VALID CASES      203        MISSING CASES       7
```

Figure H-2. RESPONSES TO ITEM 1.

```
ITEM2:  Were the directions for the activities hard to follow?

                                                   RELATIVE   ADJUSTED     CUM
                                        ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                   CODE     FREQ      (PCT)      (PCT)      (PCT)

                   Almost All      1.        5        2.4        2.5        2.5

                   Many            2.        5        2.4        2.5        4.9

                   Some            3.       81       38.6       39.7       44.6

                   Very Few        4.       62       29.5       30.4       75.0

                   None            5.       51       24.3       25.0      100.0

                                   0.        6        2.9    MISSING
                                         ------     ------     ------
                                TOTAL      210      100.0      100.0

MEAN            3.730
MODE            3.000
VALID CASES       204       MISSING CASES       6
```

Figure H-3. RESPONSES TO ITEM 2.

82.37

ITEM3: How much do you think _____ has learned by doing the Math Rainbow
       Kit activities?

```
                                               RELATIVE   ADJUSTED     CUM
                                    ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                CODE    FREQ      (PCT)      (PCT)      (PCT)

                  Very Much    1.       71       33.8       35.0       35.0

                  Much         2.       66       31.4       32.5       67.5

                  Some         3.       48       22.9       23.6       91.1

                  Little       4.       13        6.2        6.4       97.5

                  Very Little  5.        5        2.4        2.5      100.0

                               0         7        3.3    MISSING
                                    ------     ------     ------
                             TOTAL     210      100.0      100.0

MEAN             2.089
MODE             1.000
VALID CASES       203       MISSING CASES       7
```

Figure H-4. RESPONSES TO ITEM 3.

311

```
ITEM4 :  How much have you enjoyed working with ____ on these activities?

                                                      RELATIVE   ADJUSTED     CUM
                                           ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                     CODE      FREQ      (PCT)      (PCT)      (PCT)

                  Very Much         1.       102        48.6       52.8       52.8

                  Much              2.        48        22.9       24.9       77.7

                  Some              3.        27        12.9       14.0       91.7

                  Little            4.         8         3.8        4.1       95.9

                  Very Little       5.         8         3.8        4.1      100.0

                                    0         17         8.1     MISSING
                                           ------     ------     ------
                                  TOTAL      210       100.0      100.0

MEAN             1.819
MODE             1.000
VALID CASES       193       MISSING CASES     17
```

Figure H-5. RESPONSES TO ITEM 4.

```
ITEM5 :  How much time did ____ spend working on the last activity?

                                                    RELATIVE   ADJUSTED    CUM
                                         ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                   CODE      FREQ      (PCT)      (PCT)     (PCT)

                  ≤ 15 mins.      1.         56       26.7       28.1      28.1

                  16-30 mins.     2.         90       42.9       45.2      73.4

                  31-60 mins.     3.         45       21.4       22.6      96.0

                  > 60 mins.      4.          8        3.8        4.0     100.0

                                  0          11        5.2    MISSING
                                           ------     ------     ------
                                 TOTAL      210      100.0      100.0

MEAN            2.025
MODE            2.000
VALID CASES       199      MISSING CASES     11
```

Figure H-6. RESPONSES TO ITEM 5.

313

ITEM6A: Are you keeping the activities ____ has received in the box?

```
                                                RELATIVE   ADJUSTED     CUM
                                     ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                CODE     FREQ      (PCT)      (PCT)     (PCT)

                 Yes            1.      180       85.7       89.1      89.1

                 No             2.       22       10.5       10.9     100.0

                                0         8        3.8    MISSING
                                     ------     ------     ------
                              TOTAL     210      100.0      100.0

MEAN            1.109
MODE            1.000
VALID CASES      202        MISSING CASES      8
```

Figure H-7. RESPONSES TO ITEM 6A.

82.37

```
ITEM6B:  Are you doing the activities more than once with _____?

                                               RELATIVE   ADJUSTED     CUM
                                   ABSOLUTE      FREQ       FREQ      FREQ
CATEGORY LABEL             CODE       FREQ      (PCT)      (PCT)     (PCT)

               None          1.         36       17.1       17.8      17.8

               A Few         2.         91       43.3       45.0      62.9

               Many          3.         50       23.8       24.8      87.6

               All           4.         25       11.9       12.4     100.0

                             0           8        3.8    MISSING
                                    ------     ------     ------
                          TOTAL        210      100.0      100.0

MEAN          2.317
MODE          2.000
VALID CASES     202        MISSING CASES       8
```

Figure H-8. RESPONSES TO ITEM 6B.

Attachment H-1
(Page 1 of 2)

RAINBOW KIT

Dear Parents:

We are very excited about being able to offer the Math Rainbow Kit Program to some students in our school this year. We hope you are enjoying working on the activities with your children.

Before we make the kit available to more parents and children we need to know some things about how it is being used. This information is very important in helping us decide whether the kits are worth continuing and if they have been helpful.

Please complete the enclosed form and have your child return it to his/her teacher. Your child will receive a free book of his/her choice when you return the form to the school.

Once again, we hope you have enjoyed working with your child using the Math Rainbow Kit.

Sincerely,

Your school principal

AUSTIN INDEPENDENT SCHOOL DISTRICT
OFFICE OF RESEARCH AND EVALUATION

MATH RAINBOW KIT QUESTIONNAIRE FOR THE PARENTS OF

DIRECTIONS: PLEASE TELL US ABOUT HOW YOU WORK WITH BY ANSWERING THE QUESTIONS BELOW.

1. HOW HARD DO YOU THINK MOST OF THE ACTIVITIES HAVE BEEN FOR ?
(PLEASE CHECK ONE)

___TOO HARD ___HARD ___JUST RIGHT ___EASY ___TOO EASY

2. WERE THE DIRECTIONS FOR THE ACTIVITIES HARD TO FOLLOW?
(PLEASE CHECK ONE)

___ALMOST ALL ___MANY ___SOME ___VERY FEW ___NONE

3. HOW MUCH DO YOU THINK HAS LEARNED BY DOING THE MATH RAINBOW KIT ACTIVITIES? (PLEASE CHECK ONE)

___VERY MUCH ___MUCH ___SOME ___LITTLE ___VERY LITTLE

4. HOW MUCH HAVE YOU ENJOYED WORKING WITH ON THESE ACTIVITIES?
(PLEASE CHECK ONE)

___VERY MUCH ___MUCH ___SOME ___LITTLE ___VERY LITTLE

5. HOW MUCH TIME DID SPEND WORKING ON THE LAST ACTIVITY?
(PLEASE CHECK ONE)

___15 MINUTES OR LESS ___BETWEEN 16 AND 30 MINUTES ___BETWEEN 31 MINUTES AND ONE HOUR ___MORE THAN ONE HOUR

6. THE PLASTIC BOX AND ALL OF THE RAINBOW KIT ACTIVITIES ARE YOURS TO KEEP. THEY DO NOT NEED TO BE RETURNED TO THE SCHOOL.

A. ARE YOU KEEPING THE ACTIVITIES HAS RECEIVED IN THE BOX?
(PLEASE CHECK ONE)

___YES ___NO

B. ARE YOU DOING THE ACTIVITIES MORE THAN ONCE WITH ?

___NONE DONE MORE THAN ONCE ___A FEW DONE MORE THAN ONCE ___MANY DONE MORE THAN ONCE ___ALL DONE MORE THAN ONCE

IF YOU HAVE ANY OTHER COMMENTS ABOUT THE RAINBOW KITS, WRITE THEM ON THE BACK OF THIS PAGE. THANK YOU FOR YOUR TIME.

Attachment H-2
(Page 1 of 2)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

May 2, 1983

TO: Principals of Schools Using Math Rainbow Kits

FROM: Karen Carsrud

SUBJECT: Survey of Parents Whose Children Received Math Rainbow Kits

At the request of instructional staff who are concerned with continually improving the Math Rainbow Kits, we have agreed to help by collecting information on the attached parent survey. The cover letter and survey form are the same as those used in the previous years' evaluation, so that results can be compared across the two years.

Specific things you should note about the survey:

- You are asked to sign the cover-letters, to help ensure a good return rate.
- Children who return the survey will be allowed to choose a free book. Multiple children from each family can participate. Your teachers can select the books by calling Barbara Harris at 458-1291, or the Ch. 1 coordinator can assist in selecting them.
- Each child's questionnaire is preprinted with his or her name, and they are in alphabetical order within each grade level, to help your Chapter 1 or regular classroom teachers distribute them.

We hope that requesting your signature on the cover letter does not cause you to experience severe writer's cramp. Hopefully, the books children will receive through this process will make it worthwhile for them and their parents, and that all parents will be encouraged to respond. Call me at 458-1227 if I can assist in this process in any way. We would like all completed questionnaires returned to us by the end of school (May 26th.). Thank-you!

KC:lg

cc: Timy Baranoff
Lee Laws
Ann Cunningham
Ambrosio Melendrez

Approved: ______________________
Director of Office of Research and Evaluation

Approved: Ruth MacAllister
Assistant Superintendent of Elementary Education

Additional Helpful Hints

1. Questionnaires are included only for students on the rosters provided by the instructional coordinator. Children may have entered or left your school after these lists were obtained, and there may be students who received surveys that are not receiving Math Rainbow Kits. If so, please do not distribute the surveys to these children, but return them to O.R.E., noting the discrepancy.

2. If you have students receiving the Math Rainbow Kits who did not receive a survey, please provide us with a list of these students, including their grade levels, and we will provide surveys for them.

3. Your Chapter 1 teachers can select the books by contacting Barbara Harris at Twin Towers (410 East), but should call first to make certain someone will be available to show them to the appropriate room. Your Chapter 1 coordinator will be happy to provide assistance in selecting the books, or can select them for you, if you desire.

4. Return the completed surveys to the Office of Research and Evaluation when all have been returned, or at the end of school. If you would prefer, you may return batches of returned surveys sooner, but please do remember to return any that might have been received at the last minute. Call Karen Carsrud or Wanda Washington at 458-1227 if you need assistance or have questions.

```
ITEM1 (Grade K)

Difficulty
                                                 RELATIVE   ADJUSTED    CUM
                                      ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                 CODE     FREQ       (PCT)      (PCT)     (PCT)

                  Hard           2.        1         2.2        2.4       2.4

                  Just Right     3.       35        77.8       83.3      85.7

                  Easy           4.        5        11.1       11.9      97.6

                  Too Easy       5.        1         2.2        2.4     100.0

                                 0         3         6.7     MISSING
                                       -------    -------    -------
                               TOTAL      45       100.0      100.0

MEAN           3.143
MODE           3.000

VALID CASES       42       MISSING CASES      3


ITEM2 (Grade K)

Directions
                                                 RELATIVE   ADJUSTED    CUM
                                      ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                 CODE     FREQ       (PCT)      (PCT)     (PCT)

                  Some           3.       16        35.6       37.2      37.2

                  Very Few       4.       10        22.2       23.3      60.5

                  None           5.       17        37.8       39.5     100.0

                                 0         2         4.4     MISSING
                                       -------    -------    -------
                               TOTAL      45       100.0      100.0

MEAN           4.023
MODE           5.000

VALID CASES       43       MISSING CASES      2
```

```
ITEM3 (Grade K)

Amount Learned
                                                   RELATIVE   ADJUSTED    CUM
                                        ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                   CODE     FREQ       (PCT)      (PCT)     (PCT)

                  Very Much       1.       12        26.7       27.9      27.9

                  Much            2.        9        20.0       20.9      48.8

                  Some            3.       16        35.6       37.2      86.0

                  Little          4.        6        13.3       14.0     100.0

                                  0         2         4.4     MISSING
                                         ------     ------     ------
                                 TOTAL     45       100.0      100.0

MEAN            2.372
MODE            3.000

VALID CASES       43        MISSING CASES       2

ITEM4 (Grade K)

Enjoyment
                                                   RELATIVE   ADJUSTED    CUM
                                        ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                   CODE     FREQ       (PCT)      (PCT)     (PCT)

                  Very Much       1.       23        51.1       53.5      53.5

                  Much            2.       11        24.4       25.6      79.1

                  Some            3.        6        13.3       14.0      93.0

                  Little          4.        2         4.4        4.7      97.7

                  Very Little     5.        1         2.2        2.3     100.0

                                  0         2         4.4     MISSING
                                         ------     ------     ------
                                 TOTAL     45       100.0      100.0

MEAN            1.767
MODE            1.000

VALID CASES       43        MISSING CASES       2
```

```
ITEM5 (Grade K)

Time Spent
                                                 RELATIVE   ADJUSTED     CUM
                                      ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                 CODE     FREQ       (PCT)      (PCT)      (PCT)

               ≤ 15 mins.       1.        7        15.6       17.5       17.5

               16-30 mins.      2.       17        37.8       42.5       60.0

               31-60 mins.      3.       13        28.9       32.5       92.5

               > 60 mins.       4.        3         6.7        7.5      100.0

                                0         5 *      11.1     MISSING *
                                       -------    -------    -------
                               TOTAL     45       100.0      100.0

MEAN           2.300
MODE           2.000

VALID CASES       40       MISSING CASES      5


ITEM6A  (Grade K)

In Box?
                                                 RELATIVE   ADJUSTED     CUM
                                      ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                 CODE     FREQ       (PCT)      (PCT)      (PCT)

               Yes              1.       41        91.1       95.3       95.3

               No               2.        2         4.4        4.7      100.0

                                0         2         4.4     MISSING
                                       ------     ------     ------
                               TOTAL     45       100.0      100.0

MEAN           1.047
MODE           1.000

VALID CASES       43       MISSING CASES      2
```

```
ITEM68 (Grade K)

More Than Once?
                                                 RELATIVE  ADJUSTED    CUM
                                       ABSOLUTE    FREQ      FREQ     FREQ
CATEGORY LABEL               CODE        FREQ     (PCT)     (PCT)    (PCT)

                 None          1.           5      11.1      11.6     11.6

                 A Few         2.          20      44.4      46.5     58.1

                 Many          3.          10      22.2      23.3     81.4

                 All           4.           8      17.8      18.6    100.0

                               0            2       4.4   MISSING
                                       ------    ------    ------
                             TOTAL         45     100.0     100.0

MEAN          2.488
MODE          2.000

VALID CASES      43      MISSING CASES      2
```

```
ITEM1 (Grade 1)
------------------------------------------------------------------------
Difficulty
                                                 RELATIVE  ADJUSTED    CUM
                                       ABSOLUTE    FREQ      FREQ     FREQ
CATEGORY LABEL                  CODE     FREQ     (PCT)     (PCT)    (PCT)

                 Hard             2.        4      19.0      19.0     19.0

                 Just Right       3.       15      71.4      71.4     90.5

                 Easy             4.        2       9.5       9.5    100.0
                                         ------    ------    ------
                                TOTAL      21     100.0     100.0

MEAN           2.905
MODE           3.000

VALID CASES       21       MISSING CASES      0




ITEM2 (Grade 1)

Directions
                                                 RELATIVE  ADJUSTED    CUM
                                       ABSOLUTE    FREQ      FREQ     FREQ
CATEGORY LABEL                  CODE     FREQ     (PCT)     (PCT)    (PCT)

                 Many             2.        1       4.8       4.8      4.8

                 Some             3.       11      52.4      52.4     57.1

                 Very Few         4.        5      23.8      23.8     81.0

                 None             5.        4      19.0      19.0    100.0
                                         ------    ------    ------
                                TOTAL      21     100.0     100.0

MEAN           3.571
MODE           3.000

VALID CASES       21       MISSING CASES      0
```

```
ITEM3 (Grade 1)

Amount Learned
                                                      RELATIVE  ADJUSTED    CUM
                                            ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                      CODE      FREQ     (PCT)     (PCT)     (PCT)

                    Very Much         1.         7      33.3      35.0      35.0

                    Much              2.         8      38.1      40.0      75.0

                    Some              3.         5      23.8      25.0     100.0

                                      0          1       4.8    MISSING
                                             -------  ------    ------
                                    TOTAL       21     100.0     100.0

MEAN              1.900
MODE              2.000

VALID CASES        20       MISSING CASES      1
```

```
ITEM4 (Grade 1)

Enjoyment
                                                      RELATIVE  ADJUSTED    CUM
                                            ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                      CODE      FREQ     (PCT)     (PCT)     (PCT)

                    Very Much         1.        10      47.6      50.0      50.0

                    Much              2.         6      28.6      30.0      80.0

                    Some              3.         2       9.5      10.0      90.0

                    Little            4.         2       9.5      10.0     100.0

                                      0          1       4.8    MISSING
                                             ------   ------    ------
                                    TOTAL       21     100.0     100.0

MEAN              1.300
MODE              1.000

VALID CASES        20       MISSING CASES      1
```

```
ITEM5 (Grade 1)

Time Spent
                                             RELATIVE   ADJUSTED    CUM
                                  ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL           CODE       FREQ       (PCT)      (PCT)     (PCT)

         ≤ 15 mins.        1.          4        19.0       20.0      20.0

         16-30 mins.       2.          9        42.9       45.0      65.0

         31-60 mins.       3.          7        33.3       35.0     100.0

                           0           1         4.8     MISSING
                                    ------     ------     ------
                         TOTAL        21       100.0      100.0

MEAN            2.150
MODE            2.000

VALID CASES        20         MISSING CASES       1
```

```
ITEM6A (Grade 1)

In Box?
                                             RELATIVE   ADJUSTED    CUM
                                  ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL           CODE       FREQ       (PCT)      (PCT)     (PCT)

         Yes               1.         17        81.0       85.0      85.0

         No                2.          3        14.3       15.0     100.0

                           0           1         4.8     MISSING
                                    ------     ------     ------
                         TOTAL        21       100.0      100.0

MEAN            1.150
MODE            1.000

VALID CASES        20         MISSING CASES       1
```

```
ITEM68 (Grade 1)

More Than Once?
                                                         RELATIVE   ADJUSTED      CUM
                                              ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                        CODE      FREQ       (PCT)      (PCT)      (PCT)

                      None              1.         2         9.5       10.0       10.0

                      A Few             2.         9        42.9       45.0       55.0

                      Many              3.         7        33.3       35.0       90.0

                      All               4.         2         9.5       10.0      100.0

                                        . 0        1         4.8    MISSING
                                               -------    -------    -------
                                      TOTAL       21       100.0      100.0

MEAN           2.450
MODE           2.000

VALID CASES       20        MISSING CASES       1
```

```
ITEM1 (Grade 2)

Difficulty
                                                    RELATIVE    ADJUSTED     CUM
                                          ABSOLUTE    FREQ        FREQ       FREQ
CATEGORY LABEL                   CODE       FREQ     (PCT)       (PCT)      (PCT)

                     Just Right   3.         16       94.1        94.1       94.1

                     Easy         4.          1        5.9         5.9      100.0
                                          -------   -------     -------
                                 TOTAL       17      100.0       100.0

MEAN              3.059
MODE              3.000

VALID CASES        17        MISSING CASES      0
```

```
ITEM2 (Grade 2)

Directions
                                                    RELATIVE    ADJUSTED     CUM
                                          ABSOLUTE    FREQ        FREQ       FREQ
CATEGORY LABEL                   CODE       FREQ     (PCT)       (PCT)      (PCT)

                     Many         2.          1        5.9         5.9        5.9

                     Some         3.          6       35.3        35.3       41.2

                     Very Few     4.          7       41.2        41.2       82.4

                     None         5.          3       17.6        17.6      100.0
                                          -------   -------     -------
                                 TOTAL       17      100.0       100.0

MEAN              3.706
MODE              4.000

VALID CASES        17        MISSING CASES      0
```

```
ITEM3 (Grade 2)

Amount Learned
                                                      RELATIVE   ADJUSTED     CUM
                                           ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                   CODE        FREQ       (PCT)      (PCT)      (PCT)

                   Very Much       1.          5        29.4       29.4       29.4

                   Much            2.          8        47.1       47.1       76.5

                   Some            3.          2        11.8       11.8       88.2

                   Little          4.          2        11.8       11.8      100.0
                                             ------     ------     ------
                                 TOTAL         17       100.0      100.0

MEAN            2.059
MODE            2.000

VALID CASES        17       MISSING CASES      0
```

```
ITEM4 (Grade 2)

Enjoyment
                                                      RELATIVE   ADJUSTED     CUM
                                           ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                   CODE        FREQ       (PCT)      (PCT)      (PCT)

                   Very Much       1.          8        47.1       47.1       47.1

                   Much            2.          8        47.1       47.1       94.1

                   Some            3.          1         5.9        5.9      100.0
                                             ------     ------     ------
                                 TOTAL         17       100.0      100.0

MEAN            1.588
MODE            1.000

VALID CASES        17       MISSING CASES      0
```

320

```
ITEM5 (Grade 2)

Time Spent
                                                      RELATIVE   ADJUSTED    CUM
                                          ABSOLUTE      FREQ       FREQ      FREQ
CATEGORY LABEL                    CODE      FREQ       (PCT)      (PCT)     (PCT)

                  ≤ 15 mins.        1.        5         29.4       31.3      31.3

                  16-30 mins.       2.        9         52.9       56.3      87.5

                  31-60 mins.       3.        2         11.8       12.5     100.0

                                    0         1          5.9     MISSING
                                           ------     ------     ------
                                  TOTAL      17        100.0      100.0

MEAN           1.813
MODE           2.000

VALID CASES       16      MISSING CASES      1



ITEM6A (Grade 2)

In Box?
                                                      RELATIVE   ADJUSTED    CUM
                                          ABSOLUTE      FREQ       FREQ      FREQ
CATEGORY LABEL                    CODE      FREQ       (PCT)      (PCT)     (PCT)

                  Yes               1.       14         82.4       82.4      82.4

                  No                2.        3         17.6       17.6     100.0
                                           ------     ------     ------
                                  TOTAL      17        100.0      100.0

MEAN           1.176
MODE           1.000

VALID CASES       17      MISSING CASES      0
```

```
ITEM68 (Grade 2)

More Than Once?
                                             RELATIVE   ADJUSTED     CUM
                                  ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL             CODE     FREQ      (PCT)      (PCT)      (PCT)

                 None        1.        3       17.6       17.6       17.6

                 A Few       2.       12       70.6       70.6       88.2

                 Many        3.        1        5.9        5.9       94.1

                 All         4.        1        5.9        5.9      100.0
                                  ------     ------     ------
                            TOTAL     17      100.0      100.0

MEAN           2.000
MODE           2.000

VALID CASES       17      MISSING CASES      0
```

```
ITEM1 (Grade 3)

Difficulty
                                                   RELATIVE   ADJUSTED     CUM
                                        ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                   CODE     FREQ       (PCT)      (PCT)      (PCT)

                     Hard          2.        4        26.7       26.7       26.7

                     Just Right    3.        5        33.3       33.3       60.0

                     Easy          4.        2        13.3       13.3       73.3

                     Too Easy      5.        4        26.7       26.7      100.0
                                          ------     ------     ------
                                 TOTAL      15       100.0      100.0

MEAN           3.400
MODE           3.000

VALID CASES       15       MISSING CASES       0
```

```
ITEM2 (Grade 3)

Directions
                                                   RELATIVE   ADJUSTED     CUM
                                        ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                   CODE     FREQ       (PCT)      (PCT)      (PCT)

                     Almost All    1.        1         6.7        6.7        6.7

                     Some          3.        2        13.3       13.3       20.0

                     Very Few      4.        5        33.3       33.3       53.3

                     None          5.        7        46.7       46.7      100.0
                                          ------     ------     ------
                                 TOTAL      15       100.0      100.0

MEAN           4.133
MODE           5.000

VALID CASES       15       MISSING CASES       0
```

```
ITEM3 (Grade 3)

Amount Learned
                                                  RELATIVE   ADJUSTED    CUM
                                       ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                  CODE     FREQ      (PCT)      (PCT)     (PCT)

                  Very Much      1.        7        46.7       46.7      46.7

                  Much           2.        6        40.0       40.0      86.7

                  Some           3.        1         6.7        6.7      93.3

                  Very Little    5.        1         6.7        6.7     100.0
                                         ------    ------     ------
                                TOTAL     15       100.0      100.0

MEAN          1.800
MODE          1.000

VALID CASES       15       MISSING CASES      0
```

```
ITEM4 (Grade 3)

Enjoyment
                                                  RELATIVE   ADJUSTED    CUM
                                       ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                  CODE     FREQ      (PCT)      (PCT)     (PCT)

                  Very Much      1.        8        53.3       57.1      57.1

                  Much           2.        4        26.7       28.6      85.7

                  Some           3.        2        13.3       14.3     100.0

                                 0         1         6.7     MISSING
                                         ------    ------     ------
                                TOTAL     15       100.0      100.0

MEAN          1.571
MODE          1.000

VALID CASES       14       MISSING CASES      1
```

```
ITEM5 (Grade 3)

Time Spent
                                                    RELATIVE   ADJUSTED    CUM
                                       ABSOLUTE       FREQ       FREQ      FREQ
CATEGORY LABEL                 CODE      FREQ         (PCT)      (PCT)     (PCT)

                ≤ 15 mins.      1.         3          20.0       20.0      20.0

                16-30 mins.     2.         6          40.0       40.0      60.0

                31-60 mins.     3.         4          26.7       26.7      86.7

                > 60 mins.      4.         2          13.3       13.3     100.0
                                        ------       ------     ------
                               TOTAL      15         100.0      100.0

MEAN           2.333
MODE           2.000

VALID CASES        15        MISSING CASES      0


ITEM6A (Grade 3)

In Box?
                                                    RELATIVE   ADJUSTED    CUM
                                       ABSOLUTE       FREQ       FREQ      FREQ
CATEGORY LABEL                 CODE      FREQ         (PCT)      (PCT)     (PCT)

                Yes             1.        12          80.0       80.0      80.0

                No              2.         3          20.0       20.0     100.0
                                        ------       ------     ------
                               TOTAL      15         100.0      100.0

MEAN           1.200
MODE           1.000

VALID CASES        15        MISSING CASES      0
```

```
ITEM68 (Grade 3)

More Than Once?
                                                RELATIVE   ADJUSTED    CUM
                                     ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL               CODE      FREQ       (PCT)      (PCT)     (PCT)

                 None         1.         1         6.7        6.7       6.7

                 A Few        2.         8        53.3       53.3      60.0

                 Many         3.         2        13.3       13.3      73.3

                 All          4.         4        26.7       26.7     100.0
                                      ------     ------     ------
                             TOTAL      15       100.0      100.0

MEAN             2.600
MODE             2.000

VALID CASES        15      MISSING CASES      0
```

```
ITEM1 (Grade 4)

Difficulty
                                                RELATIVE   ADJUSTED    CUM
                                      ABSOLUTE    FREQ       FREQ      FREQ
CATEGORY LABEL               CODE       FREQ     (PCT)      (PCT)     (PCT)

                 Hard          2.          1       3.3        3.3       3.3

                 Just Right    3.         23      76.7       76.7      80.0

                 Easy          4.          5      16.7       16.7      96.7

                 Too Easy      5.          1       3.3        3.3     100.0
                                      ------    ------     ------
                              TOTAL       30     100.0      100.0


MEAN           3.200
MODE           3.000

VALID CASES       30      MISSING CASES      0



ITEM2 (Grade 4)

Directions
                                                RELATIVE   ADJUSTED    CUM
                                      ABSOLUTE    FREQ       FREQ      FREQ
CATEGORY LABEL               CODE       FREQ     (PCT)      (PCT)     (PCT)

                 Almost All    1.          2       6.7        6.7       6.7

                 Some          3.         10      33.3       33.3      40.0

                 Very Few      4.         13      43.3       43.3      83.3

                 None          5.          5      16.7       16.7     100.0
                                      ------    ------     ------
                              TOTAL       30     100.0      100.0

MEAN           3.633
MODE           4.000

VALID CASES       30      MISSING CASES      0
```

```
ITEM3 (Grade 4)

Amount Learned
                                                   RELATIVE  ADJUSTED    CUM
                                        ABSOLUTE     FREQ      FREQ      FREQ
CATEGORY LABEL                   CODE     FREQ      (PCT)     (PCT)     (PCT)

                    Very Much      1.       12       40.0      40.0      40.0

                    Much           2.        9       30.0      30.0      70.0

                    Some           3.        9       30.0      30.0     100.0
                                         ------    ------    ------
                                 TOTAL      30      100.0     100.0

MEAN            1.900
MODE            1.000

VALID CASES       30      MISSING CASES      0

ITEM4 (Grade 4)

Enjoyment
                                                   RELATIVE  ADJUSTED    CUM
                                        ABSOLUTE     FREQ      FREQ      FREQ
CATEGORY LABEL                   CODE     FREQ      (PCT)     (PCT)     (PCT)

                    Very Much      1.       16       53.3      59.3      59.3

                    Much           2.        7       23.3      25.9      85.2

                    Some           3.        2        6.7       7.4      92.6

                    Little         4.        1        3.3       3.7      96.3

                    Very Little    5.        1        3.3       3.7     100.0

                                   0         3       10.0   MISSING
                                         ------    ------    ------
                                 TOTAL      30      100.0     100.0

MEAN            1.667
MODE            1.000

VALID CASES       27      MISSING CASES      3
```

337

```
ITEM5 (Grade 4)

Time Spent
                                                RELATIVE   ADJUSTED     CUM
                                     ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL               CODE      FREQ       (PCT)      (PCT)      (PCT)

              ≤ 15 mins.      1.         8        26.7       26.7       26.7

              16-30 mins.     2.        15        50.0       50.0       76.7

              31-60 mins.     3.         6        20.0       20.0       96.7

              > 60 mins.      4.         1         3.3        3.3      100.0
                                     ------     ------     ------
                             TOTAL      30       100.0      100.0

MEAN            2.000
MODE            2.000

VALID CASES        30       MISSING CASES      0
```

```
ITEM6A (Grade 4)

In Box?
                                                RELATIVE   ADJUSTED     CUM
                                     ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL               CODE      FREQ       (PCT)      (PCT)      (PCT)

              Yes             1.        30       100.0      100.0      100.0
                                     ------     ------     ------
                             TOTAL      30       100.0      100.0

MEAN            1.000
MODE            1.000

VALID CASES        30       MISSING CASES      0
```

```
ITEM68 (Grade 4)

More Than Once?
                                                 RELATIVE  ADJUSTED    CUM
                                       ABSOLUTE    FREQ      FREQ     FREQ
CATEGORY LABEL                  CODE     FREQ     (PCT)     (PCT)    (PCT)

                   None           1.        4      13.3      13.3     13.3

                   A Few          2.       15      50.0      50.0     63.3

                   Many           3.        8      26.7      26.7     90.0

                   All            4.        3      10.0      10.0    100.0
                                        ------    ------    ------
                                TOTAL      30     100.0     100.0

MEAN          2.333
MODE          2.000

VALID CASES        30      MISSING CASES      0
```

```
ITEM1 (Grade 5)

Difficulty
                                               RELATIVE   ADJUSTED     CUM
                                    ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL              CODE      FREQ      (PCT)      (PCT)      (PCT)

                Hard          2.         2        4.9        5.3        5.3

                Just Right    3.        21       51.2       55.3       60.5

                Easy          4.         8       19.5       21.1       81.6

                Too Easy      5.         7       17.1       18.4      100.0

                              0          3        7.3     MISSING
                                    ------     ------     ------
                           TOTAL        41      100.0      100.0

MEAN           3.526
MODE           3.000

VALID CASES       38       MISSING CASES      3

ITEM2 (Grade 5)

Directions
                                               RELATIVE   ADJUSTED     CUM
                                    ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL              CODE      FREQ      (PCT)      (PCT)      (PCT)

                Almost All    1.         2        4.9        5.3        5.3

                Many          2.         2        4.9        5.3       10.5

                Some          3.        15       36.6       39.5       50.0

                Very Few      4.        10       24.4       26.3       76.3

                None          5.         9       22.0       23.7      100.0

                              0          3        7.3     MISSING
                                    ------     ------     ------
                           TOTAL        41      100.0      100.0

MEAN           3.579
MODE           3.000

VALID CASES       38       MISSING CASES      3
```

```
ITEM3 (Grade 5)

Amount Learned
                                                  RELATIVE   ADJUSTED    CUM
                                       ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                 CODE      FREQ      (PCT)      (PCT)     (PCT)

               Very Much         1.        13       31.7       34.2      34.2

               Much              2.        13       31.7       34.2      68.4

               Some              3.         8       19.5       21.1      89.5

               Little            4.         3        7.3        7.9      97.4

               Very Little       5.         1        2.4        2.6     100.0

                                 0          3        7.3     MISSING
                                        ------     ------     ------
                              TOTAL        41      100.0      100.0

MEAN             2.105
MODE             1.000

VALID CASES        38       MISSING CASES       3

ITEM4 (Grade 5)

Enjoyment
                                                  RELATIVE   ADJUSTED    CUM
                                       ABSOLUTE     FREQ       FREQ      FREQ
CATEGORY LABEL                 CODE      FREQ      (PCT)      (PCT)     (PCT)

               Very Much         1.        18       43.9       50.0      50.0

               Much              2.         5       12.2       13.9      63.9

               Some              3.        11       26.8       30.6      94.4

               Very Little       5.         2        4.9        5.6     100.0

                                 0          5       12.2     MISSING
                                        ------     ------     ------
                              TOTAL        41      100.0      100.0

MEAN             1.972
MODE             1.000

VALID CASES        36       MISSING CASES       5
```

```
ITEM5 (Grade 5)

Time Spent

                                                  RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE      FREQ      FREQ      FREQ
CATEGORY LABEL                 CODE     FREQ       (PCT)     (PCT)     (PCT)

                 ≤ 15 mins.     1.        10        24.4      26.3      26.3

                 16-30 mins.    2.        20        48.8      52.6      78.9

                 31-60 mins.    3.         7        17.1      18.4      97.4

                 > 60 mins.     4.         1         2.4       2.6     100.0

                                0          3         7.3    MISSING
                                       ------     ------    ------
                              TOTAL       41       100.0     100.0

MEAN              1.974
MODE              2.000

VALID CASES          38       MISSING CASES       3
```

```
ITEM6A (Grade 5)

In Box?

                                                  RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE      FREQ      FREQ      FREQ
CATEGORY LABEL                 CODE     FREQ       (PCT)     (PCT)     (PCT)

                 Yes            1.        35        85.4      92.1      92.1

                 No             2.         3         7.3       7.9     100.0

                                0          3         7.3    MISSING
                                       ------     ------    ------
                              TOTAL       41       100.0     100.0

MEAN              1.079
MODE              1.000

VALID CASES          38       MISSING CASES       3
```

```
ITEM6B (Grade 5)
----------------------------------------------------------------------------------
More Than Once?
                                                  RELATIVE   ADJUSTED     CUM
                                       ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                  CODE     FREQ       (PCT)      (PCT)      (PCT)

                    None         1.        9         22.0       24.3       24.3

                    A Few        2.       14         34.1       37.8       62.2

                    Many         3.       10         24.4       27.0       89.2

                    All          4.        4          9.8       10.8      100.0

                                 0         4          9.8      MISSING
                                        ------     ------     ------
                                TOTAL     41        100.0      100.0

MEAN            2.243
MODE            2.000

VALID CASES        37       MISSING CASES       4
```

```
ITEM1 (Grade 6)

Difficulty
                                                RELATIVE   ADJUSTED    CUM
                                     ABSOLUTE    FREQ       FREQ       FREQ
CATEGORY LABEL               CODE      FREQ      (PCT)      (PCT)      (PCT)

                Hard           2.        3        7.3        7.5        7.5

                Just Right     3.       21       51.2       52.5       60.0

                Easy           4.       14       34.1       35.0       95.0

                Too Easy       5.        2        4.9        5.0      100.0

                               0         1        2.4      MISSING
                                      ------    ------     ------
                             TOTAL      41      100.0      100.0

MEAN           3.375
MODE           3.000

VALID CASES      40        MISSING CASES       1
```

```
ITEM2 (Grade 6)

Directions
                                                RELATIVE   ADJUSTED    CUM
                                     ABSOLUTE    FREQ       FREQ       FREQ
CATEGORY LABEL               CODE      FREQ      (PCT)      (PCT)      (PCT)

                Many           2.        1        2.4        2.5        2.5

                Some           3.       21       51.2       52.5       55.0

                Very Few       4.       12       29.3       30.0       85.0

                None           5.        6       14.6       15.0      100.0

                               0         1        2.4      MISSING
                                      ------    ------     ------
                             TOTAL      41      100.0      100.0

MEAN           3.575
MODE           3.000

VALID CASES      39        MISSING CASES       2
```

```
ITEM3 (Grade 6)

Amount Learned
                                                    RELATIVE   ADJUSTED     CUM
                                         ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                   CODE      FREQ      (PCT)      (PCT)      (PCT)

                   Very Much      1.        15        36.6       37.5       37.5

                   Much           2.        13        31.7       32.5       70.0

                   Some           3.         7        17.1       17.5       87.5

                   Little         4.         2         4.9        5.0       92.5

                   Very Little    5.         3         7.3        7.5      100.0

                                  0          1         2.4     MISSING
                                           ------    ------     ------
                                 TOTAL      41       100.0      100.0

MEAN            2.125
MODE            1.000

VALID CASES       40         MISSING CASES      1

ITEM4 (Grade 6)

Enjoyment
                                                    RELATIVE   ADJUSTED     CUM
                                         ABSOLUTE     FREQ       FREQ       FREQ
CATEGORY LABEL                   CODE      FREQ      (PCT)      (PCT)      (PCT)

                   Very Much      1.        19        46.3       52.8       52.8

                   Much           2.         7        17.1       19.4       72.2

                   Some           3.         3         7.3        8.3       80.6

                   Little         4.         3         7.3        8.3       88.9

                   Very Little    5.         4         9.8       11.1      100.0

                                  0          5        12.2     MISSING
                                           ------    ------     ------
                                 TOTAL      41       100.0      100.0

MEAN            2.056
MODE            1.000

VALID CASES       36         MISSING CASES      5
```

```
ITEM5 (Grade 6)

Time Spent
                                                     RELATIVE   ADJUSTED    CUM
                                         ABSOLUTE      FREQ       FREQ      FREQ
CATEGORY LABEL                    CODE     FREQ       (PCT)      (PCT)     (PCT)

                     ≤ 15 mins.     1.       19        46.3       47.5      47.5

                     16-30 mins.    2.       14        34.1       35.0      82.5

                     31-60 mins.    3.        6        14.6       15.0      97.5

                     > 60 mins.     4.        1         2.4        2.5     100.0

                                    0         1         2.4     MISSING
                                         -------    -------    -------
                                  TOTAL      41       100.0      100.0

MEAN             1.725
MODE             1.000

VALID CASES        40       MISSING CASES      1


ITEM6A (Grade 6)

In Box?
                                                     RELATIVE   ADJUSTED    CUM
                                         ABSOLUTE      FREQ       FREQ      FREQ
CATEGORY LABEL                    CODE     FREQ       (PCT)      (PCT)     (PCT)

                     Yes            1.       31        75.6       79.5      79.5

                     No             2.        8        19.5       20.5     100.0

                                    0         2         4.9     MISSING
                                         -------    -------    -------
                                  TOTAL      41       100.0      100.0

MEAN             1.205
MODE             1.000

VALID CASES        40       MISSING CASES      1
```

ITEM68 (Grade 6)

More Than Once?

```
                                            RELATIVE   ADJUSTED     CUM
                                ABSOLUTE      FREQ       FREQ       FREQ
CATEGORY LABEL          CODE      FREQ       (PCT)      (PCT)      (PCT)

               None       1.        12        29.3       30.0       30.0

               A Few      2.        13        31.7       32.5       62.5

               Many       3.        12        29.3       30.0       92.5

               All        4.         3         7.3        7.5      100.0

                          0          1         2.4     MISSING
                                 -------    -------    -------
                        TOTAL       41       100.0      100.0

MEAN            2.150
MODE            2.000

VALID CASES        40       MISSING CASES       1
```

Attachment H-4
(Page 1 of 2)

PARENT COMMENTS

Comments (provided by parents) were unedited.

- _____ has been working on the kit with his sister. I was not working with him on the kit but his sister said he was doing alright.
- I haven't been helping _____ with the kit but she said she has been doing O.K. with it.
- Some of the Rainbow Kits ____ could do by himself. The only problem he had was with the money. He knows one from another like quarter, nickle, dime, and penny, but it is a little hard for him to count from one to another. The rest of the activity was not hard for him. He enjoyed them very much. I am very pleased that he can keep them so he can work on them through the summer.
- _____ needs to practice her time (on the clock) and money more.
- These are nice activities for us to go over with him through the summer.
- I think this kit was very ideal, especially for us parents that really can't afford to buy any materials for them to work at home. Keep it up.
- None. She enjoy them and so do we.
- I wish Rainbow Kits were used in all subjects from K-12th grade and also in foreign languages. Also, kids could use these kits in the summer to give them something to strengthen them during the 2½ months.
- This was a great project for _____. She likes working with money the most. Towards the end, she became a little bored. I think it was the length of time on the whole project. She learned some things she didn't know, like counting money, etc.
- I feel this is very beneficial to help them achieve their goals in reading skills.
- _____ checked the questionnaire herself because she said her mother never helped her with the Rainbow Kit. (Teacher's comment.)
- I know, for a fact, that the Rainbow Math has helped her a lots. Her grades in Math came up from last time.
- I think the Rainbow Kit can help many children. I enjoyed seeing _____ learn about money. This kit has helped a lots.
- I think the Rainbow Kit has been very helpful. Even to my 5 year old son, who has not yet started to school.

- I think the Rainbow Kit is a very good activity. It lets me know how much _____ knows or needs to learn, and most of all, it is a lot of fun and she has enjoyed it very much.
- I am so sorry I cannot help _____ . But last time I did. Because now I'm working in a restaurant, I have less time to work with him. But however, I can help him on Sundays only.
- Father cannot read! (Teacher's comment.)
- _____ and I both enjoyed the kit very much. She will continue being drilled over certain exercises.
- I think the kit was a very nice thing for children to do when at home on weekends.
- I think the Rainbow kit helped her very much.
- Very helpful kit -- helped his math skills.
- Our younger child attempts to work them. He enjoys them.
- We had difficulty with "Problem Solving #5," where the child would make up their own problem.
- I think it's terrific and should be continued. Good Luck!
- Yes, please send more.
- They are very good for kids. I hope they keep them for other kids.
- I really enjoy working with _________ and the Rainbow Kit. It really has helped her!
- It's nice to have and keep the kit. I will keep working with him on the kit during the summer.
- I think the Rainbow Kit has helped a lot. I think that other children will enjoy the different selections. They will learn if someone is there to work with them, someone who has time and patients. I enjoyed it very much.

ECIA Chapter 1

Appendix I

ATTENDANCE REPORTS

Instrument Description: Attendance Records

Brief description of the instrument:

The "Attendance Records" used in this appendix are actually published reports, prepared by the Department of Student Records and Reports, which summarize the average daily attendance and membership for each school. The portion of information in the reports concerning Chapter 1 schools was subjected to analysis, with consideration made for the percentage of low-income students in each school. (The low-income data were obtained from the Student Masterfile and Lunch File.)

To whom was the instrument administered?

Data from each Chapter 1 elementary school were used to calculate a regression line with predicted attendance levels for each school.

How many times was the instrument administered?

Attendance data are collected daily at each school, sent to Student Records and Reports each six weeks, summarized at that time, and then again for the year as a whole. (Data on the Lunch File are updated continuously, but the figure used as the percentage of low-income students was as of a particular period in April.)

When was the instrument administered?

The attendance summary for the entire year was the one chosen for the analyses. It was based on the data collected throughout the year.

Where was the instrument administered?

At each school.

Who administered the instrument?

Clerical staff at each school filled out the attendance registers (and also collected the lunch applications).

What training did the administrators have?

There are instructions for all forms.

Was the instrument administered under standardized conditions?

No.

Were there problems with the instrument or the administration that might affect the validity of the data?

In general, the attendance data appear to be fairly accurate. However, the attendance forms are complicated for the school staff to complete. The Lunch File may have been inaccurate to some degree due to a time lag in schools sending in applications to Food Services, or a delay in adding the data to the file.

Who developed the instrument?

Attendance data are collected on the Texas Daily Register of Pupil Attendance, which is a form developed by T.E.A. The format for summary reports is one developed by Student Records and Reports.

What reliability and validity data are available on the instrument?

None.

Are there norm data available for interpreting the results?

Summaries have been prepared every six weeks and annually for many years. (Analyses of this type are new, however.)

ATTENDANCE REPORTS

Purpose

Information from the District's attendance reports was used to help answer the following decision and evaluation questions.

> Decision Question D2: Should schoolwide projects be continued, modified, or revised? If so, how?
>
> > Evaluation Question D2-5: How did pupil attendance at schoolwide project schools compare with attendance at Chapter 1 schools with comparable percentages of low-income students?

Procedure

Average daily attendance and average daily membership for the entire 1982-83 school year for each school were obtained from AISD's Department of Student Records and Reports in late June. The number of low-income students in each school was obtained from counts of all active students in each school who were either eligible for free or reduced-price lunches, or were a sibling of such a student. These data are updated continuously by Food Services, Data Services, and ORE; the data used in this Appendix were dated April 26, 1983.

Analyses

The percentage of low-income students for each school was obtained by dividing the number of low-income students by the average daily membership. The percentage of students in attendance was computed by dividing the aggregate days of attendance by aggregate days of membership.

SPSS subprogram REGRESSION was used to determine the relationship between the percentage of low-income students and the percentage attendance for the 25 regular Chapter 1 schools (without schoolwide projects) and to obtain the weights used to plot a regression line. Membership was also tested as a predictor of attendance but did not add significant predictive power. SPSS subprogram PLOT was used to plot the regression line along with the actual data points representing each school.

In addition to the regression analyses, a test for proportions was calculated. A combined average percentage attendance was computed for the two campuses with schoolwide projects (which ranked first and second in percentage of low-income students,) and for the two schools which ranked third and fourth in percentage of low-income students. The hypothesis of "no difference" in attendance rate was tested with the statistic:

(1)

$$z = \frac{\frac{x_1}{n_1} - \frac{x_2}{n_2}}{\sqrt{p(1 - p)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where:

x_1 = the sum of the average daily attendance for the schools ranked first and second in percentage low income (the schoolwide projects);

x_2 = the sum of the average daily attendance for the schools ranked third and fourth in percentage low income;

n_1 = the sum of the average daily membership for the schools ranked first and second in percentage low income (the schoolwide projects);

n_2 = the sum of the average daily membership for the schools ranked third and fourth in percentage low income;

$$p = \frac{x_1 + x_2}{n_1 + n_2}$$

(continued on next page)

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(1) Reference: Freund, J.E. Statistics; a first course. Englewood Cliffs, N.J.: Prentice-Hall, 1981.

Results

Using the regression equation derived from percentage low income and percentage attendance for the 25 Chapter 1 schools without schoolwide projects, the predicted percentage attendance for Allison and Becker are 92.37 and 92.53, respectively, while the actual attendance rates for these two schools were 93.75% and 94.12%. These differences may appear small but actually represent differences of 875 and 1925 student-days of instruction, respectively. Figure 1 shows a plot of the regression line for the 25 Chapter 1 schools without schoolwide projects; the data points representing Allison and Becker are indicated.

Two proportions tests were done. The first compared the combined attendance rates for the two schoolwide projects campuses with the combined attendance rate for the two schools which ranked third and fourth in percentage of low-income students; for this comparison $z=1.28 (p \leq .10)$. The second test compared the combined attendance rate for the campuses with schoolwide projects to the school which ranked third in percentage of low-income students. This school is closer to the schoolwide projects schools in percentage of low-income students than is the fourth ranked school. For this comparison $z=1.57 (p \leq .06)$.

These differences are not statistically significant. However, the unit of analysis for these analyses is "school" rather than individual child. School-level measurement usually provides more stable measures, but may not be as powerful statistically as measuring individual students. A sample of Regular and SWP *students* should perhaps be followed next year if the attendance question remains important.

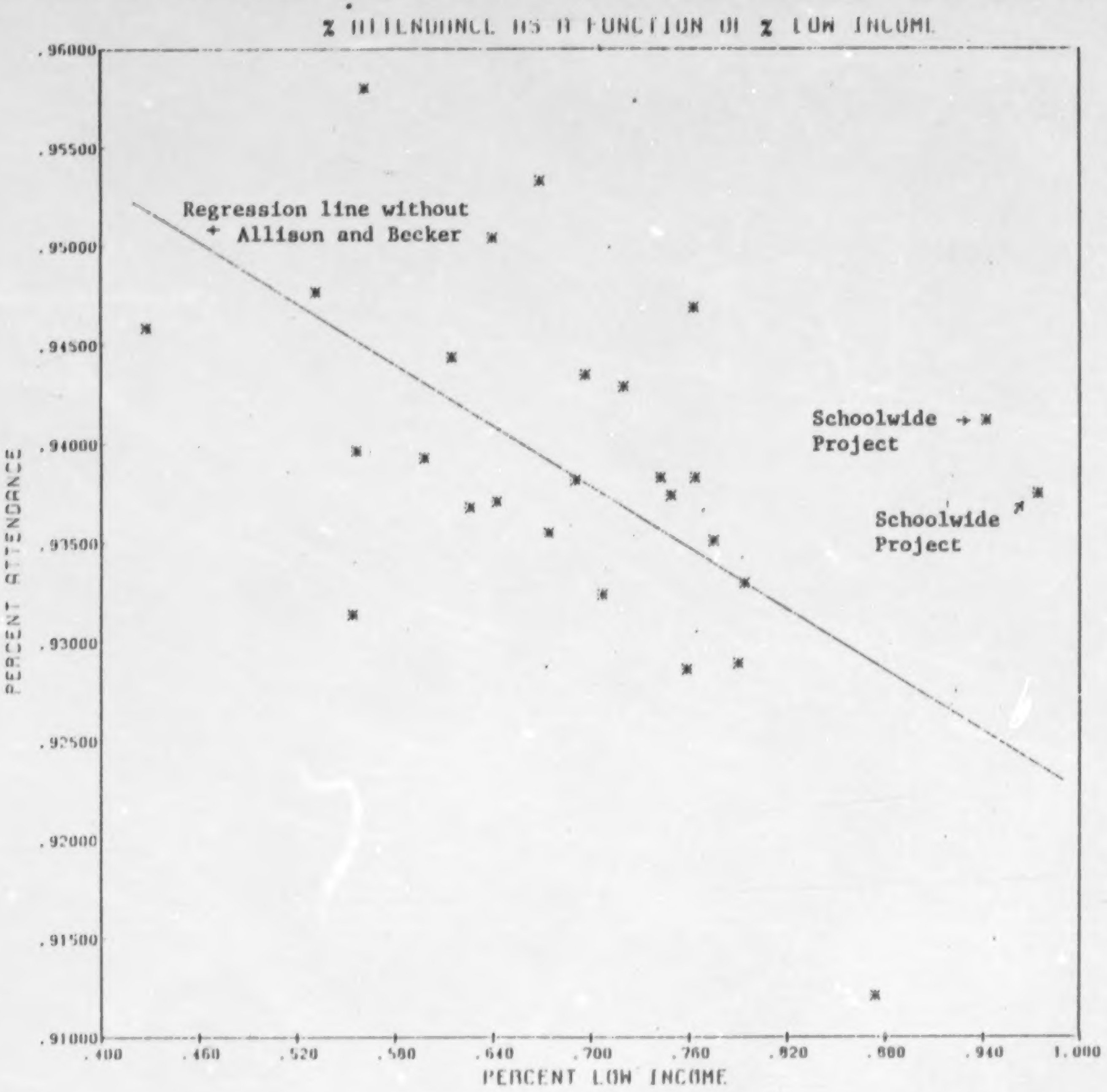

Figure 1: REGRESSION LINE FOR THE 25 CHAPTER 1 SCHOOLS WITHOUT SCHOOLWIDE PROJECTS, WITH DATA POINTS FOR ALL SCHOOLS.

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ECIA Chapter 1

Appendix J

EMPLOYEE RECORDS

Instrument Description: Employee Records

Brief description of the instrument:

Two types of employee records were used for this appendix:

- Board agendas concerning personnel actions (for information on resignations).
- Files on requests for transfers (regardless of the action taken on the request).

Data on resignations and requests for transfers from elementary schools was of interest in determining whether Allison and Becker had lower "turnover" than expected.

To whom was the instrument administered?

Copies of the Board agendas are maintained by a secretary in the Office of Staff Personnel. Files on requests for transfers are maintained by individual assistant directors of personnel.

How many times was the instrument administered?

Cumulative data over the three years of Schoolwide Projects was used.

When was the instrument administered?

Data was gathered once, for the three-year period, in June of 1983.

Where was the instrument administered?

Data were examined and tallied on a spare desk in the Office of Staff Personnel.

Who administered the instrument?

An evaluation assistant tallied the data. She was provided assistance by Personnel staff.

What training did the administrators have?

An explanation of the type of data to be collected and the type of analyses to be planned. Also, Personnel staff explained their record keeping.

Was the instrument administered under standardized conditions?

Records of resignations are handled in a standardized way. Requests for transfer are on a standard form but are kept by various assistant directors.

Were there problems with the instrument or the administration that might affect the validity of the data?

None were noted.

Who developed the instrument?

The actual forms for requests for transfer/resignation are those developed by the Office of Staff Personnel. Board agenda items, however, are written in a format determined by the Board.

What reliability and validity data are available on the instrument?

None.

Are there norm data available for interpreting the results?

The data are longitudinal in nature.

EMPLOYEE RECORDS

Purpose

Information from the District's employee records was used to help answer the following decision and evaluation questions.

> Decision Question D2: Should schoolwide projects be continued, expanded, or revised? If so, how?
>
> > Evaluation Question D2-6: Were there differences between schoolwide project and regular Chapter 1 schools in the frequency of teacher resignations and requests for transfer across the three years of the project?

Procedure

In June of 1983 records on teacher resignation and requests for transfer, which are kept by the Office of Staff Personnel, were obtained for use in assessing the turnover rate in Schoolwide Project schools, when compared to that in other elementary schools. The records for each year of Schoolwide Projects were obtained (July 1, 1980 through June 30, 1981; July 1, 1981 through June 30, 1982; July 1, 1982 through June 30, 1983.) Resignations were tallied from Board agendas during those periods; requests for transfer were tallied from the forms kept by the Assistant Directors of Personnel who work with assigning elementary teachers.

Analyses

In intrepreting the number of resignations and requests for transfer, the actual number of teachers at each school must also be considered: two requests for transfer might have a much different meaning at a school with 60 teachers than at a school with 20 teachers. Thus, all data were converted to percentages -- derived from the number of requests or number of resignations, divided by the number of teachers on each faculty. (The number of teachers was obtained from the Staff Directory for each year.) Data accumulated across the three years were considered a more stable measure than for any single year. Thus, the exact formula was:

> (Total Number of Requests for Three Years at a School) ÷
> (Number of Teachers at that School the First Year +
> Number of Teachers the Second Year + Number of Teachers
> the Third Year)

Two types of analyses were undertaken. The first was simply two rank-orderings of all elementary schools by the percentage rates of: a) requests for transfer, and b) resignations.

A second type of analysis was also conducted, to try to adjust for a possible confounding variable. Specifically, teachers in schools with a high percentage of low-income students may experience greater stress. This might affect the rate of turnover in these schools. In order to adjust for this effect, a regression line was derived to predict the percentage of requests for transfer and percentage of resignations as a function of the percentage of low-income students in the school, averaged across three years.

Results

Figures J-1 and J-2 show the rankings of elementary schools by the percentages of requests for transfer and resignations. Figure J-3 shows the regression line and each data point used to predict the percentage of requests for transfer as a function of the percentage of low-income students in the school. The relationship between the two variables was statistically significant ($F_{1,59} = 7.82$; $p \leq .007$). The multiple "r" was .34205, indicating that approximately 12 percent of the variance in requests for transfer is accounted for by the low-income variable. (The relationship between percentage of resignations and percentage of low-income students was not significant: $F_{1,59} = .13858$; $p \leq .711$.)

These results indicate that Allison and Becker do have relatively low staff turnover rates across the last three years. It is unclear whether these low turnover rates are lower than they would have been without Schoolwide Projects, since data from previous years were not obtained.

Rank	School	Percentage of Requests for Transfer
1	Summitt	0
2	Doss	0
3	Hill	1.6393
4	Oak Springs	2.0408
5	Lee	2.2222
6	Casis	3.9474
7	Webb	4.0650
8	St. Elmo	4.4643
9	Brown	5.0000
10	Oak Hill	5.0000
11	Pleasant Hill	5.4945
12	Travis Heights	6.3636
13	Dawson	6.6667
14	Pillow	6.6667
15	Barrington	7.1429
16	Becker	7.6433
17	Brentwood	7.8947
18	Linder	8.3333
19	Odom	8.5271
20	Williams	8.8889
21	Cunningham	8.9286
22	Harris	9.2784
23	Maplewood	9.3023
24	Gullett	9.3333
25	Zavala	9.6386
26	Allan	10.3774
27	Mathews	11.2903
28	Blanton	11.4943
29	Barton Hills	12.2449
30	Allison	12.5000
31	Pease	12.5000
32	Wooldridge	12.5000
33	Cook	12.9630
34	Ridgetop	13.6364
35	Sunset Valley	13.8298
36	Houston	14.0940
37	Bryker Woods	14.2857
38	Ortega	14.7059
39	Highland Park	14.9254
40	Metz	15.2941
41	Graham	15.6863
42	Pecan Springs	15.7143
43	Wooten	16.1290
44	Sanchez	16.2162
45	Read	16.2162
46	Andrews	16.6667
47	Reilly	16.9492
48	Langford	17.0370
49	Menchaca	17.6471
50	Govalle	17.6991
51	Rosewood	17.9487
52	Zilker	18.0723
53	Campbell	18.1818
54	Brooke	18.5185
55	Joslin	18.8525
56	Blackshear	20.9302
57	Walnut Creek	23.6364
58	Winn	27.1739
59	Rosedale	29.1667
60	Norman	29.1667
61	Sims	53.0612

Figure J-1. RANK-ORDERING OF SCHOOLS BY PERCENTAGE OF TEACHERS REQUESTING TRANSFERS ACROSS THREE YEARS (1980-81, 1981-82, 1982-83).

82.37

Rank	School	Percentage of Resignations
1	Norman	0
2	Hill	3.2787
3	Joslin	4.0984
4	Wooldridge	4.1667
5	Winn	4.3478
6	Pleasant Hill	4.3956
7	Bryker Woods	4.7619
8	Allison	5.2083
9	Becker	5.7325
10	Menchaca	5.8824
11	Barrington	5.9524
12	Sims	6.1224
13	Travis Heights	6.3636
14	Cook	6.4815
15	Odom	6.9767
16	Brown	7.0000
17	Metz	7.0588
18	Cunningham	7.1429
19	Walnut Creek	7.2727
20	Webb	7.3171
21	Dawson	7.4074
22	Highland Park	7.4627
23	Rosewood	7.6923
24	Graham	7.8431
25	Gullett	8.0000
26	St. Elmo	8.0357
27	Langford	8.1481
28	Rosedale	8.3333
29	Pillow	8.3333
30	Doss	8.4337
31	Pecan Springs	8.5714
32	Wooten	8.6022
33	Brooke	8.6420
34	Summitt	8.8235
35	Williams	8.8889
36	Ridgetop	9.0909
37	Zilker	9.6386
38	Reilly	10.1695
39	Campbell	10.2273
40	Brentwood	10.5263
41	Casis	10.5263
42	Andrews	10.7843
43	Lee	11.1111
44	Allan	11.3208
45	Harris	11.3402
46	Govalle	11.5044
47	Linder	11.9048
48	Oak Springs	12.2449
49	Sunset Valley	12.7660
50	Read	13.5135
51	Blackshear	13.9535
52	Maplewood	13.9535
53	Barton Hills	14.2857
54	Sanchez	14.8649
55	Houston	16.7785
56	Zavala	16.8675
57	Pease	17.5000
58	Ortega	17.6471
59	Mathews	17.7419
60	Oak Hill	19.1667
61	Blanton	21.8391

Figure J-2. RANK-ORDERING OF SCHOOLS BY PERCENTAGE OF TEACHERS RESIGNING ACROSS THREE YEARS (1980-81, 1981-82, 1982-83).

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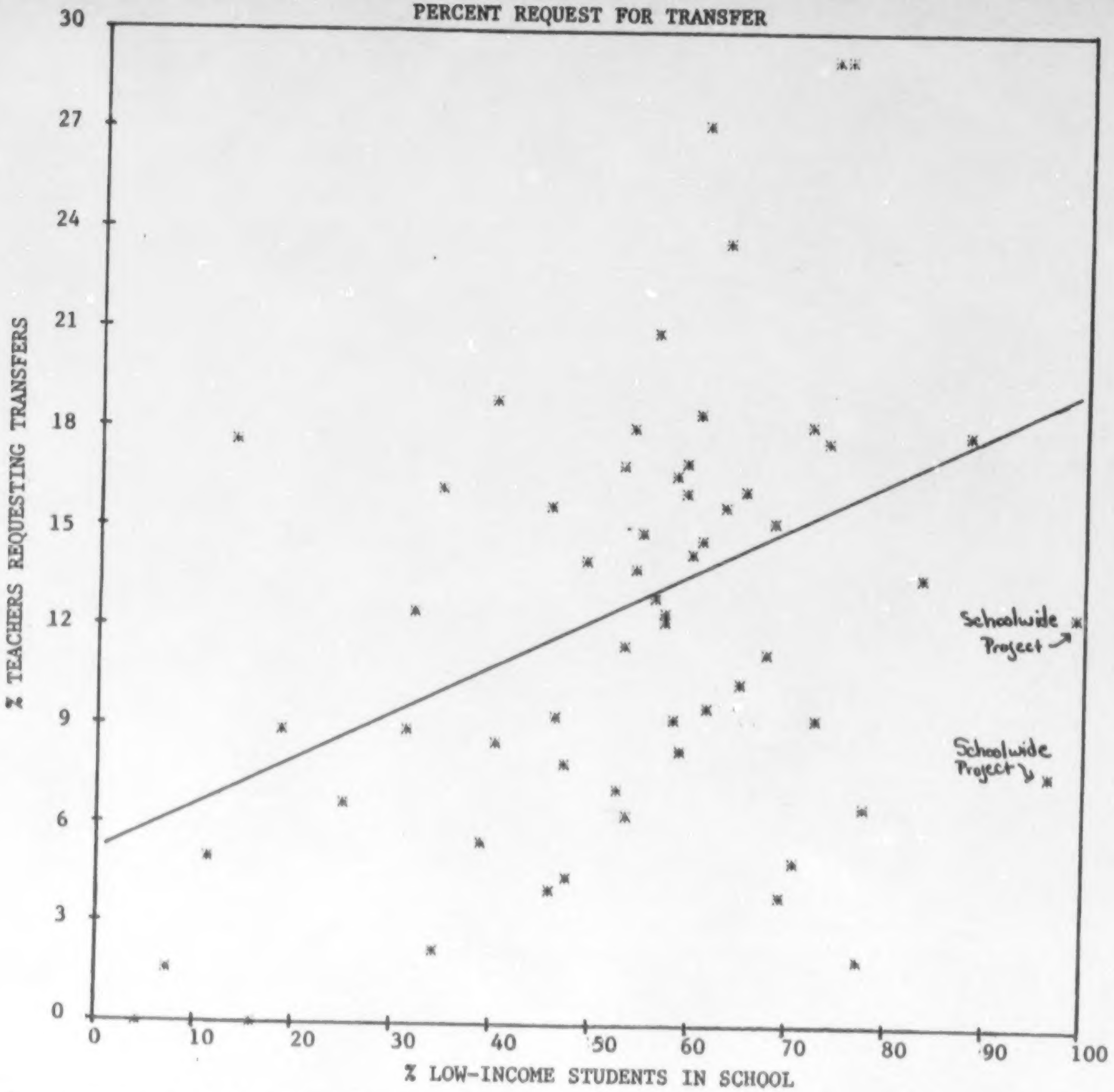

Figure J-3. PERCENTAGE OF TEACHERS REQUESTING TRANSFERS ACROSS THE LAST THREE YEARS FOR EACH SCHOOL, BY THE PERCENTAGE OF LOW-INCOME STUDENTS IN THE SCHOOL.